

THE LINDNER CENTER

AT THE CHRIST HOSPITAL

QUARTERLY REPORT



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On the cover: Members of the care team at the Carl H. & Edyth Lindner Heart Failure Treatment Center (from left to right): Matt Greenwell, RN; Eugene Chung, MD; Santosh Menon, MD; Kathleen Daly, NP; Dean Kereiakes, MD; Robin Baldauf, RN; Tracy Stephens, NP. PHOTO BY LEMOS PHOTOGRAPHY



A message from Dr. Kereiakes

Dear Readers,

Welcome to *The Lindner Center Quarterly Report*, a publication dedicated to providing you with information to keep you healthy and informed about leading-edge developments in the treatment of cardiovascular disease. In this report we examine the novel, multidisciplinary programs available for heart failure disease management through The Carl H. & Edyth Lindner Heart Failure Treatment Center at The Christ Hospital.

You will learn how weakened or damaged heart muscle can lead to a condition known as congestive heart failure (CHF), which carries the classic symptoms of fatigue, shortness of breath and fluid retention. This issue of the *Quarterly Report* discusses both the basic as well as innovative and investigational treatments for heart failure that are available through The Lindner Heart Failure Treatment Center, working in conjunction with The Lindner Clinical Trial Center at The Christ Hospital. Hopefully, it will help you gain a better understanding of heart failure, which remains the most prevalent cardiovascular disease in the United States today.

Finally, you will learn about a remarkable new resource, Heart Link, which has been designed to more effectively bridge the "gap" between hospital and outpatient heart failure treatment. Studies have shown that the time between hospital discharge and outpatient physician follow-up represents the period of greatest vulnerability for heart failure relapse. Through enhanced patient education and the efforts of specific Heart Link nursing personnel, The Lindner Heart Failure Treatment Center can assure better dietary and medical compliance, more timely follow-up with the primary care physician or cardiologist, easier access to support groups, and rehabilitation services including a comprehensive outpatient heart failure clinic for those patients with limited resources.

Hopefully, the knowledge you gain from this *Lindner Center Quarterly Report* will help you or your loved ones receive better, more comprehensive care for heart failure so that you may live better and longer. As always, we urge you to discuss these matters with your personal physician.

In good health,

Dean J. Kereiakes, MD

Medical Director, The Christ
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The Lindner Center Quarterly Report's mission is to educate the Greater Cincinnati and Northern Kentucky community about heart and cardiovascular research, treatment and prevention.

The Lindner Center for Research and Education is affiliated with The Christ Hospital Heart and Vascular Center.

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Heart Failure

(a continuum of care)



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When patients think about cardiac care, they often focus their attention on the acute side of the spectrum, such as blocked arteries and the prevention of sudden cardiac arrest. The most prevalent cardiac disease, however, is a chronic condition known as congestive heart failure (CHF). It affects nearly 5 million Americans, and it is the most common reason for hospital admission in patients older than 65. In fact, more patients die from CHF than all forms of cancer combined.

The term CHF doesn't mean the heart has stopped working. It means that the heart muscle has become weak and is unable to pump blood adequately to meet the body's demands. As a result, patients with CHF experience fatigue and shortness of breath due to insufficient oxygen in the blood, along with ankle and leg swelling and abdominal bloating because the heart is unable to pump away excess fluid in the body. Ninety percent of the CHF patients who are admitted to the hospital are suffering from fluid overload or congestion.

Several conditions can cause CHF, the most common of which include a prior heart attack, high blood pressure (this is the most common cause in women) and occasionally a specific viral infection. Without proper treatment and significant lifestyle modifications, patients with CHF continue a downward spiral with frequent hospitalizations and poor quality of life.

Because CHF is a serious chronic condition, caring for these patients requires specific expertise and close monitoring. The Carl H. & Edyth Lindner Heart Failure Treatment Center at The Christ Hospital is unique in this region because it offers not only state-of-the-art inpatient care but also effective follow-up after the patients return home. Two full-time CHF physician specialists work closely with a dedicated team to ensure patients receive outstanding care both in and out of the hospital.

TREATMENT OF CHF

As the U.S. population ages, the incidence of CHF will continue to rise, which makes improved treatment an even more important goal. Although new options for CHF are evolving, heart failure treatment can be complicated as well as time-consuming, and it often remains inadequate or fragmented.

Studies have shown that less than 50 percent of patients with heart failure receive important medications such as ACE inhibitors or beta blockers, which have been demonstrated to improve sur-

vival in large-scale clinical trials. Cardiac defibrillators (pacemaker-like devices also known as ICDs) have also been shown to save lives of patients with CHF by reducing the incidence of sudden cardiac arrest. Unfortunately, many patients with CHF either do not receive or are not even made aware of these potentially life-saving therapies.

A key component to treating CHF involves monitoring patients after they leave the hospital. The daily regimen for CHF patients includes stepping on the scale (a fluctuation in weight can indicate fluid retention), taking important medications and adhering to a diet that is limited in liquids and salt. It is vitally important for patients to understand why they must follow this strict routine. Studies have shown that educating patients about their heart conditions improves their quality of life, reduces the need for subsequent hospitalizations and ultimately improves their long-term outlook. Giving patients the tools to better care for themselves at home is a major goal of the heart failure treatment program at The Christ Hospital. At the Carl H. & Edyth Lindner Heart Failure Treatment Center, education for patients and families begins with both one-on-one and classroom education provided by pharmacists, dieticians and other members of the CHF team.

Maintaining continuity in care once patients leave the hospital is essential. According to studies, the period from hospital discharge to outpatient follow-up is when patients are most vulnerable for a relapse. Again, the reasons include a lack of understanding of their condition, inability to follow a diet that has been prescribed for them (dietary indiscretion), not taking their medications as directed (medical non-compliance) and difficulty scheduling follow-up care with their primary care physician and/or cardiologist.

HEART LINK PROGRAM

The care team at the Carl H. & Edyth Lindner Heart Failure Treatment Center recognizes the problems associated with lack of continuity in patient care and has developed the Heart Link Program. A resource to help patients with CHF transition from the hospital to home, the program has recently been recognized by the Greater Cincinnati Health Council as one of 2008's "Best Innovative Healthcare Solutions."

Prior to hospital discharge, a CHF-specialized nurse gives instructions to patients regarding diet, medications and self-monitoring techniques that will help patients recognize if their CHF is getting



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worse. Once patients arrive home, the Heart Link nurse calls to review the care plan and to answer questions. This service is free of charge.

The Heart Link nurse will review:

- Dietary instructions and restrictions specific for CHF
- Exercise regimens to stay active and feel better
- Signs and symptoms of worsening CHF, as well as when to call your doctor
- Medication instructions
- CHF support group and rehabilitation information
- Follow-up doctor's appointments
- Feedback regarding a patient's stay in the CHF unit

(The Heart Link nurse will not adjust medications nor treat a condition over the phone. Any concerns will be directed to the patient's physician.)

Most importantly, the Heart Link nurse will help patients understand how to incorporate the CHF self-care regimen into their lifestyles. Here is an example of how it works:

Mr. Smith has been diagnosed with CHF and he has been given instructions to reduce the amount of salt in his diet. Initially, he cannot imagine how he will be able to eat the foods he loves without a significant quantity of salt. The Heart Link nurse works with Mr. Smith and his wife to teach them how they can still enjoy their favorite foods within the restriction of 4 grams of sodium per day. With the nurse's help, Mr. and Mrs. Smith are now actively participating in Mr. Smith's doctor-recommended care plan but they don't have to change their lifestyle dramatically.

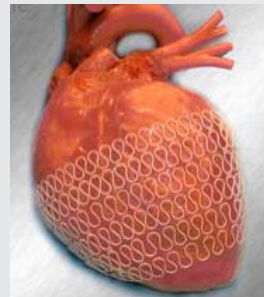
The Heart Link nurse incorporates patients' personal goals of controlling CHF with a life plan that involves patients directly in their own care. Working together on a continual basis provides the best possible care for patients with CHF. ■

Two Cutting-Edge Options

Surgical treatments are available for CHF as part of a research protocol being conducted by The Lindner Clinical Trial Center.

- **Paracor HearNet™** (Figure 1) is a surgically placed device that can prevent further enlargement of the heart. The Christ Hospital is the only center in the region that offers this type of therapy.

FIGURE 1



- Additionally, the CHF unit at The Christ Hospital offers the only **ultrafiltration (UF) program** in Cincinnati for patients with advanced CHF. UF enables removal of excess fluid in CHF patients using a portable device attached through a peripheral intravenous catheter. This program has been recognized nationally (Figure 2).

FIGURE 2

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