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FOR IMMEDIATE RELEASE

DATA SHOWS SYSTEM 100 ULTRAFILTRATION IS SAFE, EFFECTIVE AND REDUCES HOSPITAL LENGTH OF STAY FOR HEART FAILURE PATIENTS

CHF Solutions' Fluid Removal System Provides Precise Control of Volume Reduction and Rate of Removal in Fluid-Overloaded Patients

LAS VEGAS, NV. — Sept. 21, 2003 — Data presented at this year's Heart Failure Society of America meeting in Las Vegas, NV, showed that ultrafiltration using CHF Solutions' System 100 Fluid Removal System is a safe and effective means to remove large volumes of excess fluid in patients with heart failure, and also reduces hospital length of stay by almost two days when compared to the national average of patients receiving conventional diuretic treatment. Data also demonstrated that System 100 ultrafiltration treatment lead to improved B-type natriuretic peptide (BNP) levels and other overall health benefits that were substantial enough to improve patients' heart failure ranking on the New York Heart Association's (NYHA) classification scale (the medical community's gold standard for measuring the level of heart failure).

The observational study was conducted by Midwest Heart Specialists, one of the largest private cardiology practices in Illinois, who observed 25 heart failure patients receiving ultrafiltration with the System 100 in order to assess the effectiveness of the device on fluid-overload. Dr. Mitchell T. Saltzberg and Dr. Maria Rosa Costanzo led the study at four Midwest Heart affiliated hospital sites; Good Samaritan Hospital, Edwards Hospital, Central DuPage Hospital, and Elmhurst Memorial Hospital.

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“Conventional diuretic treatments have been frustrating to doctors due to unpredictable results and treatment times,” said Dr. Maria Rosa Costanzo, a Heart Failure Specialist at Midwest Heart Specialists. “The System 100 provides doctors the confidence and ability to remove a specific fluid amount within a set timeframe, thus providing the patient more immediate and complete relief as well as improving the overall standard of hospital cardiac care.”

Many health conditions such as kidney failure, post-surgical overload and metabolic diseases such as glucose intolerance, hyperglycemia and acid maltase can cause fluid-overload, however congestive heart failure (CHF) is the leading cause. CHF Solutions’ System 100 is cleared for use to treat fluid-overload in all these types of patients. There are 550,000 new cases of congestive heart failure each year and 2.2 million fluid-overloaded CHF patients are hospitalized yearly, costing the U.S. healthcare system more than \$23 billion annually.

“Results showed that ultrafiltration with the System 100 in patients with heart failure shortened hospital length of stay by two days compared to the national average observed in the ADHERE¹ study,” added Dr. Mitchell T. Saltzberg, Medical Director of the Heart Failure Program at Midwest Heart Specialists. “The positive results indicate that the System 100 may be a more efficient and economical treatment for this patient population.”

Additionally, study observations showed that patients experienced a 158 ± 289 pg/dl drop in B-type natriuretic peptide (BNP) levels, a protein secreted by the heart when under volume or pressure overload. Measurement of BNP via a simple blood test helps diagnose heart failure and its severity. Thus a decrease in BNP levels indicates improvement in heart health. Patients also lost an average of five pounds (primarily water) during the System 100 ultrafiltration treatment, reducing the amount of excess weight straining the heart and in many cases enabling patients to be more mobile and active.

“The System 100 Fluid Removal System is designed to create a win-win situation, resulting in improved medical outcomes while allowing patients to leave the hospital earlier,” explained John L. Erb, Chief Executive Officer of CHF Solutions, Inc. “This means the expedient delivery of top-notch cardiac care with a potential cost savings for both the patient and hospital alike.”

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¹ Acute Decompensated Heart Failure National Registry

The System 100 is manufactured by CHF Solutions, Inc. a Minnesota-based manufacturer of innovative medical devices for cardiac care. It received 510(k) marketing clearance from the U.S. Food and Drug Administration (FDA) in June 2002 and has since incorporated into the premier cardiac programs of hospitals across the United States, including some of the nation's top hospitals as rated by *U.S. News & World Report*.

The findings of Midwest Heart's observational study were used to set the scientific protocols for their EUPHORIA² trial that is currently underway. Euphoria's primary efficacy and safety end points are to determine whether early System 100 ultrafiltration of diuretic-resistant patients upon hospital admission can completely resolve fluid overload signs and symptoms to achieve hospital discharge within three days without the development of adverse metabolic changes such as renal insufficiency or symptomatic hypotension. Secondary endpoints measured (at discharge, one month and three months) will include whether early System 100 ultrafiltration decreases diuretic resistance, improves cost effectiveness compared to historical treatments, reduces the need for short-term re-hospitalization, and improves how patients feel earlier in their hospitalization.

These observations by Midwest Heart Specialists come on the heels of the successful *Simple Access Fluid Extraction (SAFE)* clinical trial, which demonstrated that the System 100 could safely, and effectively remove fluid overload via peripheral catheters rather than central venous catheters. This, among other things, enables healthcare providers other than physicians to administer the treatment. Data from the SAFE trial was submitted to the FDA and used as the basis for clearance of the System 100 in June, 2002.

"The SAFE clinical trial showed that the System 100 offers patients and physicians an effective treatment option for fluid-overload," said Dr. Brian E. Jaski, lead investigator of the SAFE trial at Sharp Memorial Hospital in San Diego, California.

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² Early Ultrafiltration Therapy in Patients with Decompensated Heart Failure and Observed Resistance to Intervention with Diuretic Agents

About CHF Solutions & The System 100 Fluid Removal System

Headquartered in Brooklyn Park, Minnesota, CHF Solutions is a privately held manufacturer of innovative medical devices for cardiac care and the developer of the System 100 Fluid Removal System. The System 100 Fluid Removal System is a technologically sophisticated, yet easy-to-use mechanical pump/ultrafiltration system that can remove up to four liters (one gallon) of excess fluid from the body over an eight-hour treatment. Physicians can specify and adjust the exact amount and rate of fluid to be removed from each patient, resulting in a gradual reduction that has no significant clinical impact on electrolyte balance, blood pressure or heart rate. A standard midline catheter for vascular access is established via a patient's peripheral vein, typically the arm, and the System 100 is administered. This is a closed system which processes blood through the filtration console via inflow and outflow catheters in the patient's arms. System 100 ultrafiltration can be used by the physician to achieve the target fluid removal goal for the patient. And, because it resets fluid levels, the System 100 may also improve the effectiveness of oral diuretics that patients take on an ongoing basis. For more information, visit www.chfsolutions.com.

About Midwest Heart Specialists (MHS)

Midwest Heart Specialists is a 50-member private practice cardiology group in Chicago. Among the group's cardiac sub-specialties are congestive heart failure, electrophysiology, lipid management, interventional cardiology, radiology and clinical diagnosis and treatment. MHS physicians are on staff at nine greater Chicago hospitals and at additional clinics in Aurora, Yorkville, Bolingbrook, Kishwaukee and Sandwich. For more information, visit www.midwestheart.com.

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