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FOR IMMEDIATE RELEASE

DATA FROM TWO PUBLISHED STUDIES SHOW SHORT- AND LONG-TERM BENEFITS OF CHF SOLUTIONS' AQUAPHERESIS™ THERAPY IN TREATING HEART FAILURE PATIENTS WITH FLUID OVERLOAD

Benefits Include Greater Fluid Removal, Weight Loss and Symptom Relief, as Well As Less Hospitalization

Brooklyn Park, Minn. — December 6, 2005 — CHF Solutions, a private medical device manufacturer, announced today that data from two studies published in the December 6 edition of the *Journal of the American College of Cardiology* (JACC) show that Aquapheresis™, the company's advanced ultrafiltration procedure, is a safe and effective means to remove large volumes of excess fluid in congestive heart failure patients with fluid overload. In addition, the studies demonstrated improved patient outcomes after Aquapheresis therapy both in the hospital and sustained for three months, when compared to diuretic drug therapy alone. The two studies are named RAPID and EUPHORIA.

“The results of RAPID and EUPHORIA confirm the earlier trials on the clinical value of mechanical salt and water removal in patients with fluid overload,” said Dr. Paul Sobotka, chief medical officer at CHF Solutions. “These findings clearly establish Aquapheresis with the Aquadex FlexFlow system as a powerful option for salt and water removal in these patients and give us pause to reconsider the current treatment protocols. When published in early 2006, the results of the recently completed UNLOAD¹ trial will examine these sustained clinical benefits of early Aquapheresis with the Aquadex FlexFlow system on a much larger scale.”

In heart failure patients, an inefficient heart can lead to a build up of excess fluid, causing swollen legs and arms, fatigue, and eventually severe and life-threatening shortness of breath. Improved treatment of fluid overload could improve patient care while reducing these costs. In the United States each year, there are more than 3.1 million hospital admissions of heart failure patients at a cost of approximately \$23 billion.

RAPID CHF Study Results²

The RAPID study was a multicenter, randomized controlled trial with 40 patients among six Minneapolis/St. Paul-based hospitals that compared outcomes from a single eight-hour session of ultrafiltration versus 24 hours of diuretic treatment.

“Early use of ultrafiltration for patients hospitalized with heart failure is feasible, well-tolerated, and resulted in significant weight loss and fluid removal,” said Dr. Bradley Bart, principal investigator of the RAPID CHF ² study and director of Nuclear Cardiac Imaging at Hennepin County Medical Center, Minneapolis. “Ultrafiltration is an effective method of fluid removal with several advantages over diuretic-based approaches, including adjustable fluid removal volumes and rates, no effect on electrolytes in the blood, and decreased neurohormonal activity.”

Study highlights:

- The data showed that ultrafiltration is well-tolerated and associated with effective volume removal, relief of symptoms, improved hemodynamics, increased responsiveness to subsequent diuretic therapy, and increased sodium excretion, despite decreasing doses of diuretics.
- Ultrafiltration has also been studied in patients with chronic, stable heart failure and is associated with improvements in hemodynamics, exercise capacity and increased responsiveness to diuretics.

EUPHORIA Study Results³

This single-center, prospective trial included 20 patients and explored whether ultrafiltration could result in earlier balance of body fluids and earlier discharge from the hospital. The EUPHORIA study documents that early ultrafiltration safely and effectively reduces congestion in acute decompensated heart failure (ADHF) patients with diuretic resistance. A treatment strategy of early ultrafiltration may decrease length of stay and rehospitalizations in high-risk heart failure patients.

“In heart failure patients with fluid overload who are resistant to diuretic therapy, ultrafiltration effectively and safely decreases length of hospital stays and readmissions,” said Dr. Maria Rosa Costanzo, the principal investigator for the EUPHORIA study and a heart failure specialist at Midwest Heart Specialists, Chicago. “Continued improvement for three months after ultrafiltration, without significant medication changes, suggests that ultrafiltration improved natriuresis and diuresis.”

Study highlights:

- Early ultrafiltration in patients with fluid overload and diuretic resistance permitted the discharge of 60 percent of high-risk ADHF patients in three days or less. Aggressive fluid withdrawal with ultrafiltration was not associated with worsening kidney failure, electrolyte abnormalities or symptomatic low blood pressure.
- Ultrafiltration decreased neurohormonal activation, as indicated by the drop in plasma BNP levels without worsening kidney function. These findings are consistent with previous observations.
- In addition, the study found that the clinical benefits of early ultrafiltration last at least three months. Nine patients required hospitalization for ADHF in the three months preceding ultrafiltration; only one patient required hospitalization for ADHF in the three months after treatment. Thus, early ultrafiltration may be an alternative to reserving ultrafiltration for patients who are not responding to drug therapies.

About Aquapheresis and the Aquadex FlexFlow System

CHF Solutions' Aquapheresis therapy with the Aquadex FlexFlow system allows physicians to remove the excess salt and water in patients with fluid overload where, when, and how they want. Inpatient or outpatient, peripheral or central venous access, its low blood flow, low extracorporeal blood volume, and precise removal rates enable dependable, unprecedented fluid removal. For more information, go to www.chfsolutions.com.

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- 1 UNLOAD = Ultrafiltration versus IV Diuretics for Patients Hospitalized for Acute Decompensated Congestive Heart Failure. Completed, publications expected in early 2006.
 - 2 RAPID = Relief for Acutely Fluid Overloaded Patients with Decompensated Congestive Heart Failure. Bart et. al. J Am Coll Cardiol 2005;46:2043–6.
 - 3 EUPHORIA = Early Ultrafiltration Therapy in Patients with Decompensated Heart Failure and Observed Resistance to Intervention with Diuretic Agents. Costanzo et. al. J Am Coll Cardiol 2005;46:2047–51.

The Aquadex System is indicated for temporary (up to 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy, and extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization. All treatments must be administered by a healthcare provider, under physician prescription, both of whom having received training in extracorporeal therapies.

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