HEART OF THE MATTER

Changing Heart Failure Mortality

It has become increasingly evident that there has been a significant shift in the long-term mortality of patients admitted to the hospital with heart failure. Discharge from the hospital after an acute event often leads to a revolving door, returning the patients back into the hospital with recurrent symptoms.

There is little question that the current guideline-driven therapy of beta-blockers, ACE inhibitors, and aldosterone receptor blockers have had a significant impact on chronic heart failure therapy. Yet there are almost 1 million first and readmissions annually to U.S. hospitals with the primary diagnosis of heart failure, our nation's most common admitting diagnosis. Despite increased adherence and the success of guideline therapy and inpatient educational efforts, heart failure specialists continue to be faced with an unacceptable early mortality and 60-day readmission rate of 35%.

BY SIDNEY GOLDSTEIN, M.D.

A recent trended temporal analysis of outcomes of hospitalized patients with heart failure between 1993 and 2006 provides both good and bad news. During that period, in-hospital mortality decreased from 8.5% to 4.3%. But the 30-day postdischarge mortality rate increased from 4.3% to 6.4%. The postdischarge mortality rate during the 30 days post discharge now exceeds the in-patient mortality. During the same 30-day period, the readmission rate increased from 17.2% to 20.1 %. Associated with these outcomes, the authors point out that there had been a significant shortening of the length of stay from 8.8 days in 1993 to 6.3 days in 2006 (JAMA 2010;303:2141-7). This shortened hospital stay is largely driven by Medicare reimbursement rates. Their analysis raises important question in regard to the potential effect of the shortening of hospital stay on postdischarge events.

Several studies have examined inpatient care as it affects readmission rates. All of these studies have indicated increase compliance to guideline therapy. However, one rather striking observation has been the failure to achieve weight loss or diuresis during hospitalization. The ADHERE registry points out that 53% of patients admitted with acute congestive heart failure, presumably with volume overload, lose less than 5 pounds, and 20% actually gain weight. It is true that some heart failure may be related to causes other than fluid accumulation, but for the vast majority of patients fluid accumulation represents the primary precipitating event leading to acute heart failure. It is quite possible that the shortened hospital stay leads to premature discharge before adequate diuresis can be achieved. I have found it difficult if not impossible to obtain daily weights in the hospital, and actually urge all of my patients to buy a scale and use it to adjust their diuretic program at home. A novel idea like this would probably not be allowed in the hospital.

A subtle increase in fluid retention associated with increase in pulmonary artery pressure preceding the acute exacerbation of heart failure has been observed in a number of studies using implantable devices. These devices can continuously monitor pulmonary fluid volume and pulmonary artery pressure. Research has been carried out using pulmonary impedance measurements in an attempt to continuously measuring pulmonary fluid. Some of these devices have been incorporated into pacemaker-defibrillator devices, but as yet have not been approved for clinical use. The CHAMPION trial recently reported at the European Heart Failure Society meeting reported that using a totally implantable pulmonary artery pressure sensor in patients with NYHA Class III patients led to improvement in heart failure outcomes. In a small randomized study over a 60-day period of follow-up, symptomatic improvement and the need for rehospitalization was observed.

The issue of early readmission and mortality after acute therapy remains a dilemma facing the hospitalists, internists, and family physicians who treat most of these patients. A careful assessment of the early discharge policies is in order. The mantra of expeditious hospital discharge may be incriminated in the readmission and mortality outcomes. It is also possible that physicians are not aggressive enough with diuretic therapy, both in the hospital and after discharge. Whether an implantable pulmonary artery sensor will replace the bathroom scale remains to be seen. I have observed over time, much to my displeasure, that my bathroom scale never lies. ■

DR. GOLDSTEIN, medical editor of CARDIOLOGY NEWS, is professor of medicine at Wayne State University and division head emeritus of cardiovascular medicine at Henry Ford Hospital, both in Detroit. He is on Data Safety Monitoring Committees for the National Institutes of Health and several pharmaceutical companies.

Correction

The article "Heart Failure Improves With Iron Repletion" (Jan. 2010, p. 1) should have stated that the same formulation of ferric carboxymaltose was used in the Ferinject Assessment in Patients With Iron Deficiency and Chronic Heart Failure trial as was used in trials of women with iron-deficiency anemia secondary to heavy uterine bleeding or postpartum anemia. Luitpold Pharmaceuticals and Vifor Pharma are jointly developing FCM, and their respective manufacturing processes and specifications are identical, according to officials at Luitpold.

Cardiology News

President, IMNG Alan J. Imhoff

Editor in Chief Mary Jo M. Dales

Executive Editors Denise Fulton, Kathy Scarbeck

Managing Editor Catherine Hackett

Senior Editors Christina Chase, Kathryn DeMott, Jeff Evans, Lori Buckner Farmer, Keith Haglund, Gina L. Henderson, Sally Koch Kubetin, Teresa Lassman, Mark S. Lesney, Jane Salodof MacNeil, Renée Matthews, Catherine Cooper Nellist, Amy Pfeiffer, Terry Rudd, Leanne Sullivan, Elizabeth Wood

Editorial Production Manager Carol Nicotera-Ward

Associate Editors Felicia Rosenblatt Black, Therese Borden, Lorinda Bullock, Jay C. Cherniak, Richard Franki, Virginia Ingram-Wells, Jane Locastro, January Payne,

Reporters *Chicago:* Patrice Wendling; *Denver:* Bruce Jancin; *Germany*: Jennie Smith; *Los Angeles:* Betsy Bates; *Miami:* Damian McNamara; *Mid-Atlantic:* Michele G. Sullivan; *New England:* Diana Mahoney; *New York:* Mary Ellen Schneider; *Philadelphia:* Mitchel L. Zoler; *San Diego:* Doug Brunk; *San Francisco:* Sherry Boschert, Robert Finn; *Washington:* Alicia Ault, Elizabeth Mechcatie, Naseem S. Miller, Heidi Splete, Miriam E. Tucker, Kerri Wachter

Contributing Writers Christine Kilgore, Mary Ann Moon

Project Manager Susan D. Hite

Assignments Manager Megan Evans

Executive Director, Operations Jim Chicca

Director, Production/Manufacturing Yvonne Evans

Production Manager Judi Sheffer

Production Specialists Maria Aquino, Anthony Draper, Rebecca Slebodnik

Creative Director Louise A. Koenig

Design Supervisor Elizabeth Byrne Lobdell

Senior Designers Sarah L.G. Breeden, Yenling Liu

Designer Lisa M. Marfori

Photo Editor Catherine Harrell

Senior Electronic Production Engineer Jon Li

Sales Director, IMNG
Mark E. Altier, 973-290-8220, m.altier@elsevier.com

National Account Manager
Christy Tetterton, 973-290-8231, c.tetterton@elsevier.com

Advertising Offices 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250

Classified Sales Manager, IMNG
Robert Zwick 973-290-8226, fax 973-290-8250, r.zwick@elsevier.com

Classified Sales Representative
Andrea LaMonica 800-381-0569, fax 914-381-0573, a.lamonica@elsevier.com

Editorial Offices 5635 Fishers Lane, Suite 6000, Rockville, MD 20852, 877-524-9335, cardiologynews@elsevier.com

Address Changes Fax change of address (with old mailing label) to 973-290-8245 or e-mail change to subs@elsevier.com

Reprints Call 240-221-2419

Director of Information Technology Doug Sullivan

Senior Systems Administrators Lee J. Unger, Kreg M. Williams

Systems Administrator/Application Support Peter Ayinde

Sr. Program Manager, Customized Programs Malika Wicks

Circulation Analyst Barbara Cavallaro, 973-290-8253, b.cavallaro@elsevier.com

Program/Marketing Manager Jennifer Eckert

Business Controller Dennis Quirk

Adv. Services Manager Joan Friedman

Credit Supervisor Patricia H. Ramsey

Manager, Administration/Conventions Lynne Kalish

Receptionist Linda Wilson

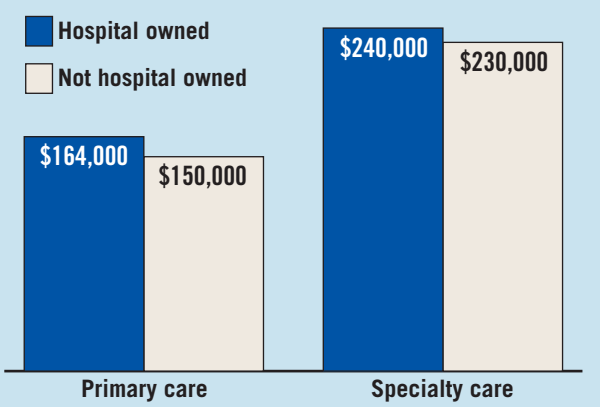
Accounts Payable Coordinator Daniela Silva

POSTMASTER Send changes of address (with old mailing label) to CARDIOLOGY NEWS Circulation, 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960.

CARDIOLOGY NEWS (ISSN 1544-8800) *is published monthly by Elsevier Inc., 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250. Subscription price is $109.00 per year.*

VITAL SIGNS

Median First-Year Compensation Higher Among Hospital-Owned Practices, 2009



Note: Based on survey responses from 702 practices.
Source: Medical Group Management Association