

MILLENNIUM GROWTH STRATEGIES

for Health Care

A PUBLICATION OF HEALTH STRATEGIES & SOLUTIONS, INC.

DECEMBER 2001

VOLUME THREE, NUMBER SEVEN

Unnecessary Admissions for Chest Pain Cost Over \$4 Billion Annually

More than five million emergency room visits occur each year to evaluate chest pain and discomfort. An extended evaluation is required for 50 to 60 percent of patients who arrive at the emergency room with chest pain to identify virtually all cases of acute myocardial infarction.

Traditionally, this evaluation has occurred during a two- to three-day stay in a coronary care unit. Yet, significant evidence of cardiac disease is found in less than half of these admitted patients. It is estimated that these unnecessary admissions account for 1.6 million hospital days and total costs in excess of \$4 billion annually. Conversely, some asymptomatic patients are sent home from the emergency room and later have a serious cardiac incident.

Growth and Revenue Opportunities: Chest Pain Units

The goal of chest pain units (CPUs) is to improve the triage, diagnosis, and initial treatment of patients who arrive at the hospital emergency department with complaints of chest pain. Using standardized protocols and clinical guidelines, patients are evaluated to assess the short-term risk of death or serious complications from a cardiac event.

Four out of five patients observed in a chest pain unit can avoid hospitalization as an inpatient. In addition, the cost of extended observation in the emergency department is often 50 to 80 percent lower than an inpatient admission. Several clinical studies have demonstrated that chest pain units can reduce the cost of treating low-risk chest pain patients by \$1,000 to \$3,000 per patient.

Historically, a major disincentive for developing CPUs was Medicare's refusal to pay for the observation of patients in chest pain units, even though the treatment may be more cost effective than an inpatient admission. However, a new Medicare rule, expected to go into effect on January 1, 2002, will reimburse hospitals with chest pain units for these observation patients.

Outreach is a critical component of the chest pain unit. Consumer education sessions and materials describe heart attack warning signs, emphasize the importance of seeking treatment quickly, and identify the symptoms of chest pressure that precede acute chest pain. Other programs educate consumers about reducing key risk factors for coronary artery disease such as smoking and hypertension.

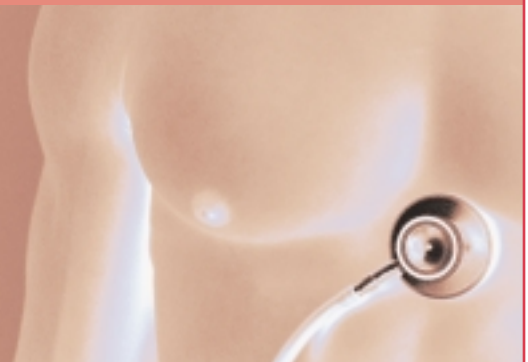
Since the first CPU was established in 1981, it is estimated that more than one thousand hospitals and medical centers have developed similar units. The results of a 1997 study indicated that approximately 20 percent of metropolitan emergency departments had CPUs, with most units located contiguous to the emergency department. The CPUs identified in the 1997 study had an average of seven beds, but the size of individual units ranged from three to 10 beds.

In an effort to uniformly evaluate and treat patients seeking treatment for chest pain, Mercy Medical Center in Canton, Ohio, combined services from its emergency and cardiology departments

[continued on next page](#)

Six Components of Chest Pain Units

- 1. OUTREACH PROGRAM:** educates the public to promptly seek medical care as soon as symptoms begin, particularly those with high risk factors for coronary artery disease
- 2. ATTACK PROGRAM:** expedites start of therapy in the emergency department
- 3. OBSERVATION PROGRAM:** monitors and evaluates low-risk patients to avoid the inadvertent release home of patients with atypical symptoms
- 4. UNIT DESIGN:** achieves optimal patient care including evaluation, expedited treatment for acute patients, and long-term monitoring
- 5. UNIT STAFFING:** requires additional emergency department physician and nursing staff to monitor the observation patients
- 6. UNIT MANAGEMENT:** ensures quality patient care and proper utilization of resources through continuous quality improvement



in early 1998. The Emergency Chest Pain Center at Mercy is unique because an interventional cath lab located in the emergency department enables cardiologists to perform cardiac angioplasty without transferring the patient.

Streamlined protocols and the emergency department cath lab have also improved clinical outcomes. In the general population, 2 to 8 percent of all patients return home from the emergency department when further treatment may have been warranted. Protocols such as those developed by Mercy have helped to reduce these rates to 0.4 percent. In two years, the Emergency Chest Pain Unit has not lost any heart attack patients except for those already in shock upon arrival. Since 1999, Mercy has saved nearly \$900,000 due to the decreased reliance on thrombolytic drugs, and length of stay in the ICU/CCU has been reduced by at least one day.

Developing a chest pain unit can offer benefits in several areas, including clinical outcomes, community health improvement, and relationships with referring physicians and other providers. The proposed reimbursement changes will only increase the attractiveness of this strategy.



Above l to r: Craig Holm, Alan Zuckerman, and Hugo Finarelli

For more information on chest pain units, please contact one of our directors:

Craig E. Holm, CHE, CHC
cholm@hss-inc.com

Hugo J. Finarelli, Ph.D., CHC
hfinarelli@hss-inc.com

Alan M. Zuckerman, FACHE, FAAHC
azuckerman@hss-inc.com

HEALTH STRATEGIES & SOLUTIONS, INC.

1429 Walnut Street, Suite 200
Philadelphia, Pennsylvania 19102
(215) 636-3500
hss-inc.com

Health Strategies & Solutions, Inc., is a national management consulting firm dedicated to helping organizations discover innovative strategies and solutions for today's complex health care challenges. Our staff has enabled hundreds of health care organizations across the country to address complex issues, make decisions that achieve lasting results, and set courses for success in the new millennium.

Millennium Growth Strategies is published by Health Strategies & Solutions, Inc. The information presented in this newsletter reflects the opinions of Health Strategies & Solutions' staff and may not be appropriate for all health care organizations under certain circumstances.

©2001 Health Strategies & Solutions, Inc.

HEALTH STRATEGIES & SOLUTIONS, INC.

1429 Walnut Street, Suite 200
Philadelphia, Pennsylvania 19102



We're on the 'Net at hss-inc.com