



MHI QUARTERLY

A quarterly report from the Minneapolis Heart Institute®

AUGUST 2005
VOL. 1 No. 2

IN THIS ISSUE

MHI Online	2
Research at MHI	3
Staff News	4
MHI/Abbott Northwestern Climb Higher in National Rankings	5
CME Events	6

NEW TECHNOLOGY TO TREAT CARDIAC ARRHYTHMIAS

Cardiologists with the Minneapolis Heart Institute at Abbott Northwestern begin use of Stereotaxis, a magnetic-guided navigation system to precisely guide catheters throughout the heart

Cardiologists with the Minneapolis Heart Institute at Abbott Northwestern Hospital are among the first in the nation to use a new form of technology to treat heart problems including irregular heartbeats, or cardiac arrhythmias.

The new technology, called Stereotaxis, is a digital magnetic navigation system that helps doctors remotely steer small catheters throughout the heart and surrounding vessels. The Stereotaxis technology uses powerful magnets outside the body to guide catheters inside the heart by remote control. Cardiologists are able to precisely position the catheters via remote control to reach the exact location where the heart is malfunctioning. The catheter may then be activated to “ablate,” or treat, the area in the heart by disrupting the abnormal signals.

“Stereotaxis offers us the ability to guide and place a catheter anywhere in the heart or surrounding vessels, including incredibly difficult, or previously inaccessible, locations,” said William Katsiyannis, MD, cardiologist with the Minneapolis Heart Institute at Abbott Northwestern. “This technology has the potential to change how we treat patients who require interventional cardiac procedures.”

~ continued on page 5



Cut line goes here



MINNEAPOLIS
HEART
INSTITUTE

MHI/ABBOTT NORTHWESTERN CLIMB HIGHER IN NATIONAL RANKING

For the fourth straight year, *U.S. News & World Report's* "America's Best Hospitals" edition has ranked Abbott Northwestern and the Minneapolis Heart Institute among the nation's best for heart and heart surgery.

Abbott Northwestern climbed to the 25th spot in this national ranking, which appeared in the magazine's July 18 edition.

"It's always rewarding to be recognized for the dedication and commitment demonstrated everyday at MHI," said Randall K. Johnson, MD, president of Minneapolis Cardiology Associates. "But it's especially gratifying because this ranking comes from our peers across the country."

Abbott Northwestern is cited as one of the country's best hospitals in five specialty areas in the 16th annual edition of *U.S. News & World Report's* "America's Best Hospitals."

The publication ranks 176 top medical centers, from a total of 6,007, in 17 clinical specialties.

In addition to heart and heart surgery, Abbott Northwestern was ranked in four other specialties: 50 in ear, nose and throat, 16 in neurology and neurosurgery, 44 in orthopaedics and 34 in urology.

To be considered, a hospital first must satisfy one of three requirements: be a member of the Council of Teaching Hospitals, be affiliated with a medical school or have at least nine of 18 identified technology-related services.

In each specialty, a hospital must perform a given number of procedures or had to be cited by at least one physician in the past three years of *U.S. News* surveys. These hospitals received a score that equally weighs reputation, mortality and a group of care-related factors such as nursing. The "America's Best Hospitals"



methodology was devised in 1993 by the University of Chicago.

The score is based on: *Reputation*—as rated by board-certified physicians who were selected at random and asked to list up to five hospitals they consider tops in their specialty, regardless of cost or location.

Mortality—comparing the number of deaths of Medicare patients with specified conditions in 2001, 2002 and 2003 with the number expected.

Other factors—including availability of hospice and palliative care, the number of discharges, nursing ratios and other issues.

The rankings appear in the July 18 issue of *U.S. News & World Report*.

NEW TECHNOLOGY TO TREAT CARDIAC ARRHYTHMIAS

~ continued from front page

Cardiac arrhythmia refers to any change from the normal sequence of electrical impulses in the heart, causing abnormal heart rhythms. This can cause the heart to pump less effectively. If arrhythmias last for some time, they may cause the heart rate to be too slow or too fast or the heart rhythm to be erratic. Arrhythmias are common – as many as 2.2 million Americans are living with atrial fibrillation, one type of rhythm problem, according to the American Heart Association.

If a heart beats too fast, called tachycardia, patients may be treated with an electric device called an implantable

cardioverter defibrillator. If the heart beats too slow, a condition called bradycardia, patients may be treated by an implanted electronic pacemaker to speed up the heart rhythm as needed. The most serious cardiac rhythm disturbance is called ventricular fibrillation, where the lower chambers quiver and the heart loses its ability to pump blood. "There are many different types of cardiac arrhythmias and this technology offers us more options to treat these patients," said Katsiyannis.

The Stereotaxis lab is located in Abbott Northwestern's new 128-bed Heart Hospital, located on its Minneapolis campus.

Minneapolis Heart Institute ONLINE

WHO are the cardiologists and cardiothoracic surgeons at the Minneapolis Heart Institute?

WHAT are the newest programs and advances in research?

WHAT continuing education programs are available through MHI?

WHAT are MHI's subspecialty labs and clinics?

MHI's Web site – www.mplsheart.com – holds a wealth of information about current issues in cardiology as well as this practice. The site is updated regularly to include upcoming continuing medical education offerings, heart-related headlines and **XXXXX**

Most recently, we began updating our content regarding the catheterization lab. The cath lab is a cornerstone of MHI. This full-service lab includes 24-hour coverage for emergencies.

In addition to serving as an effective, less invasive form of treatment, cardiac catheterization is the recommended diagnostic modality to assess heart function. It allows physicians to examine the efficacy of the heart muscle as well as the patient's coronary arteries and heart valves.

The cath lab is also a crucial function of MHI's unparalleled Level 1 Heart Attack Program. Cath lab procedures include coronary interventional procedures, valvuloplasty and patent foramen ovale (PFO) closure.

A NEW LANDMARK IN HEART CARE

In recognition of Abbott Northwestern's new Heart Hospital, an ad campaign has launched that focuses on the innovative approach that this building represents. The opening of the 128-bed Heart Hospital this spring represents a new standard of care – a landmark in heart care. Ads like this are appearing in newspapers, magazines, billboards and television. The ads run through September.





Research at the MINNEAPOLIS HEART INSTITUTE

RESEARCH FOCUSES ON ADULT STEM CELLS TO TREAT HEART DISEASE

The Minneapolis Heart Institute Foundation is one of only a few centers nationwide participating in unique trials that involve treating heart disease with adult stem cells.

Current studies suggest it may be possible to treat angina by growing new blood vessels and/or heart muscle using adult stem cells.

The first phase of a trial exploring this option, the CD34+ Adult Stem Cell Trial, just completed enrollment. Results will be presented at the American Heart Association National Convention in November. The next phase of this trial will begin this fall.

MHIF is scheduled to begin a second trial this summer for patients with angina or heart failure. In this trial, a patient's own bone marrow (where

stem cells are found) will be injected directly into the heart muscle. The study will examine whether or not the stem cells will help improve the blood supply and function of the heart.

“CURRENT STUDIES SUGGEST IT MAY BE POSSIBLE TO TREAT ANGINA BY GROWING NEW BLOOD VESSELS AND/OR HEART MUSCLE USING ADULT STEM CELLS.”

It is also thought that adult stem cells can prevent damage to the heart following acute myocardial infarction. MHIF is participating in two studies using adult stem cells to treat patients who have had a heart attack. MHI cardiologist, Jay Traverse, is pioneering one of the first trials in the United States that uses stem cells to treat patients who have had heart attacks. A second trial for patients who have had heart

attacks that uses mesenchymal stem cells is scheduled to begin this summer.

For the final two stem cell trials, one involves using stem cells from the legs of patients who have congestive heart failure, and the other trial uses stem cells to treat peripheral arterial disease.

“We are extremely excited to be on

the cutting edge of these groundbreaking therapies,” said Tim Henry, MD, director of clinical research at the Minneapolis Heart Institute Foundation. “These studies represent our ongoing commitment to provide our patients with the latest innovations in cardiovascular care.”

ADULT VS. EMBRYONIC STEM CELLS

Stem cell research has been the subject of great controversy. Although the debate focuses on embryonic stem cells, many people don't understand the difference between adult stem cells and embryonic stem cells.

Stem cells are able to divide and renew themselves for many years. Embryonic stem cells are extracted from a three to five day old embryo. These embryos are created in vitro but never implanted.

By contrast, the primary role of adult stem cells is to repair tissue that has been damaged from injury, disease or other

circumstances. These cells are able to divide into different types of tissue, which makes the stem cells intriguing for clinical researchers.

Law restricts federal funding to creating new embryonic stem cell lines. However, the embryonic stem cell lines that existed prior to that legislation are still being used.

Adult stem cell lines have been used in a variety of ways, including bone marrow transplants, burn victims and cancer patients.

New Cardiologist Expands Services in Outstate

A new cardiologist, Timothy G. Dirks, MD, joins the Minneapolis Heart Institute in August and expands the amount of service in north/central Minnesota.

Dirks joins MHI after completing a cardiovascular fellowship at the University of Minnesota. Along with MHI's Peter Stokman, MD, Dirks will practice at St. Joseph's Medical Center in Brainerd, the Riverwood Healthcare Center in Aitkin and the Central Lakes Medical Clinic in Crosby.

"MHI has a long history of providing exceptional cardiology care to patients in their communities," Dirks said. "I look forward to moving with my family to the area to focus my practice on this tradition."

Dirks' practice will focus on non-invasive imaging and preventive services. His experience includes completing a chief medical residency at Abbott Northwestern Hospital and a medical degree from the University of Minnesota. Dirks earned his medical degree from the University of Minnesota.

MHI has established clinics in outstate Minnesota to increase access to cardiology services. A range of cardiovascular services is available at these locations including cardiology consults, imaging procedures, preventive cardiology and pacemaker follow-up.



Timothy G. Dirks, MD

920 East 28th Street
Minneapolis, MN 55407

Allina Health System

PRESORTED
STANDARD
US POSTAGE PAID
PERMIT NO. 30824
MINNEAPOLIS, MN

CME events

Upcoming
2005

VASCULAR CME CONFERENCE

VASCULAR DISEASES: A PRIMARY CARE PERSPECTIVE

Sept. 16 & 17, 2005

The Saint Paul Hotel, St. Paul, MN

A course designed for clinicians who seek a comprehensive review of vascular strategies that can and should be applied in primary care practice.

To Register: log onto the web site at www.cme.umn.edu and click on "Course Calendar" or call 612-626-7600.

MINNEAPOLIS HEART INSTITUTE REGIONAL CARDIOVASCULAR NURSING CONFERENCE

CARDIOVASCULAR CARE 2005: PROFESSIONALISM, PRACTICE AND PATIENT CARE

Sept. 22, 2005

Hotel Sofitel, Bloomington, MN

Keynote speaker: Mary Fran Tracy, president-elect of AACN.
For additional information or to pre-register contact: Krista Lee at 612-775-9606 or krista.a.lee@allina.com.

Look for more information about either event by logging onto www.mplsheart.com, or call 612-863-1919.

For regular updates regarding MHI-sponsored CME events, or other program information, log onto www.mplsheart.com.