

ADULT CARDIAC SURGERY
OUTCOMES AND CLINICAL
ACTIVITY REPORT

2010 DATA

CARDIAC SURGERY
AT THE UNIVERSITY OF MICHIGAN

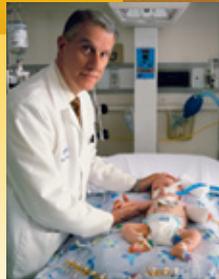


University of Michigan
Cardiovascular Center

Welcome to the Cardiovascular Center

From the Head of the Section of Cardiac Surgery

As the specialty of cardiac surgery continues to evolve and our healthcare system prepares to meet the challenges inherent in health care reform, we feel it is important to provide you with this summary of our adult cardiac surgical outcomes for 2010. Thanks to the collaboration of the many specialty teams in the University of Michigan's Cardiovascular Center, we believe our paradigm of care is the optimal model for success both now and in the future, providing the most appropriate care for our patients.



Timely reporting and transparency remain an important responsibility of ours and we hope you find this update valuable to you and your patients.

Edward L. Bove, M.D.
*Helen and Marvin Kirsh Professor of Surgery
Head, Section of Cardiac Surgery*

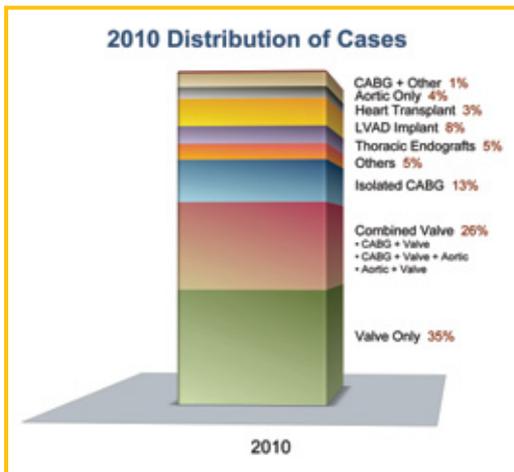
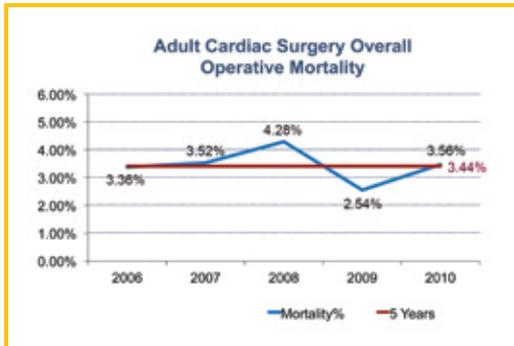
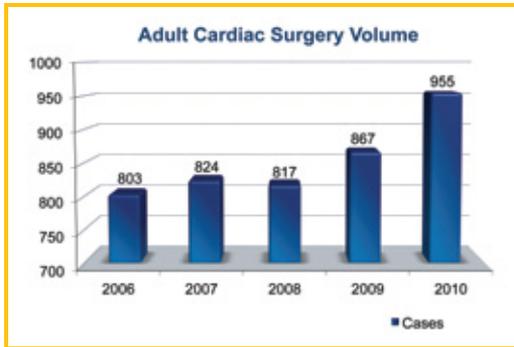
In 2010, the Adult Cardiac Surgery Service performed 955 major procedures at University Hospital. The volume of LVAD implantations, aortic and mitral valve surgery, and the treatment of complex diseases of the aorta continue to increase. In addition, the use of minimally invasive valve techniques has grown substantially.

We are proud to be recognized by *U.S. News and World Report* for our accomplishments, being ranked 12th this year in Adult Cardiac Surgery and Cardiovascular care and are equally proud that the Congenital Heart Program is rated number 3 in the nation.



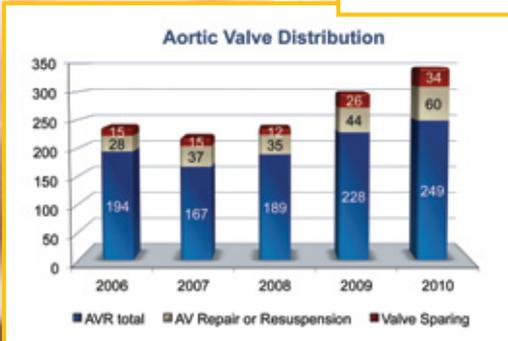
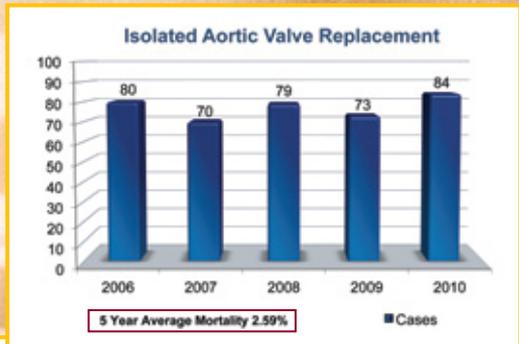
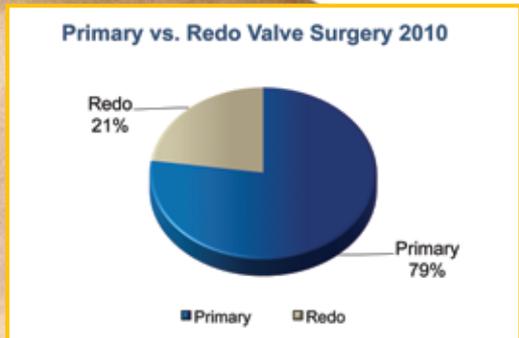
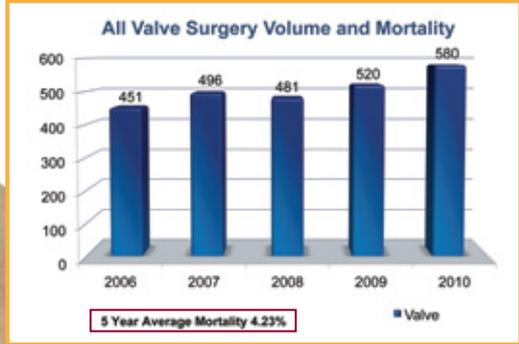
Volume/Mortality

The University of Michigan Division of Adult Cardiac Surgery at the Cardiovascular Center continues to increase the volume of operations performed. The growing aortic and ventricular assist device programs contributed significantly to this growth as did valve operations. The University of Michigan continues to maintain low mortality despite the increased complexity of the patient population.



Valve Disease Overview

The University of Michigan Cardiovascular Center continues to be a leader in heart valve surgery. Valve operations combined to account for **61%** of the operations performed at the University of Michigan. The multidisciplinary approach and experience of the surgical team has allowed continued growth in the number of valve saving operations in both aortic and mitral valves. There was a **26%** increase in the number of aortic valve sparing operations in 2010, while the mitral valve repair rate for degenerative mitral valve disease was **100%**. We use standard surgical approaches along with an expanding minimally invasive program.



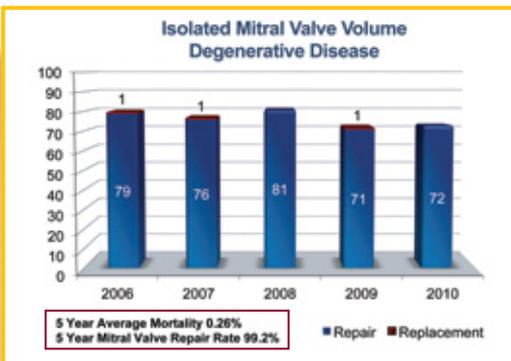
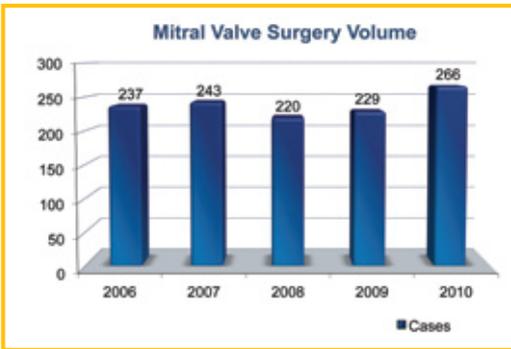
G. Michael Deeb, MD,
 Himanshu J. Patel, MD,
 Stanley J. Chetcuti, MD, and
 Paul Michael Grossman, MD
 (left to right)

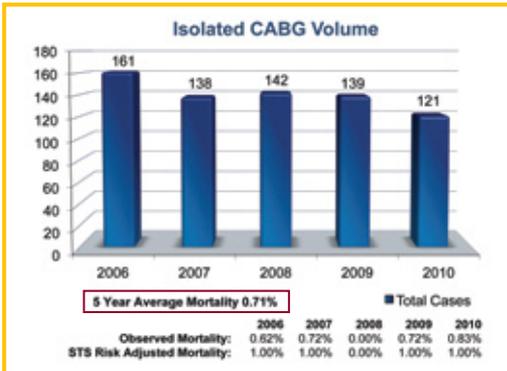
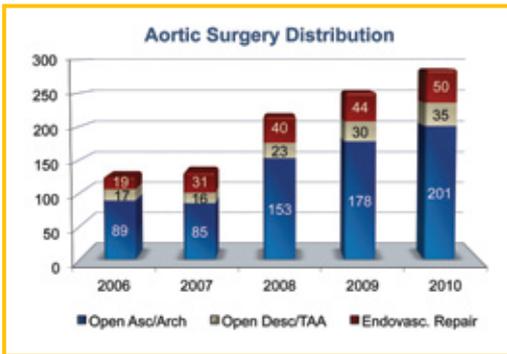
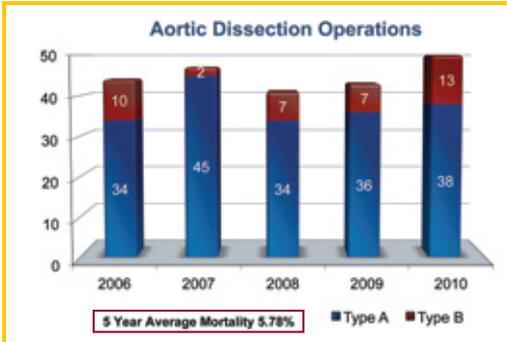


Percutaneous Aortic Valve Trial

The University of Michigan Cardiovascular Center is participating in a national clinical trial to offer patients a less invasive approach to

replacing diseased aortic valves. In the Medtronic CoreValve trial, surgeons and interventional cardiologists work side by side in unique hybrid rooms to perform the procedure called transcatheter aortic valve implantation. It allows access to the diseased aortic valve percutaneously. The University of Michigan study team is led by Stanley J. Chetcuti, MD, associate professor of internal medicine; Paul Michael Grossman, MD, associate professor of internal medicine; G. Michael Deeb, MD, Herbert Sloan Collegiate professor of surgery; and Himanshu J. Patel, MD, associate professor of surgery.





Aortic Procedures

The University of Michigan Multidisciplinary Aortic Program brings together a team of specialists from different areas including cardiology, cardiac surgery, vascular surgery, and interventional radiology to deliver a truly innovative treatment plan for better care of patients with aortic disease. Our surgeons maintain one of the largest aortic practices in North America, while achieving low mortality rates for this complex patient population.

Coronary Artery Procedures

The surgeons at the University of Michigan have performed a substantial number of coronary artery bypass operations in the last five years. The mortality rate for isolated coronary artery bypass (CABG) procedures remains low at 0.83% in 2010.

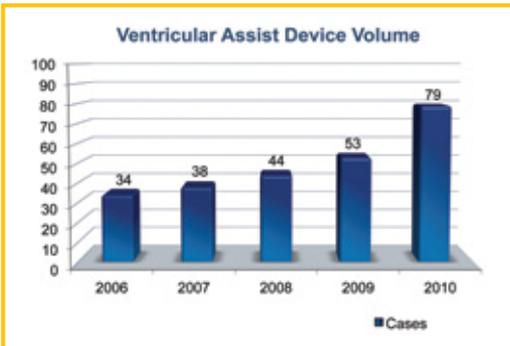


Adult Congenital Heart Disease Program

The Adult Congenital Heart Disease (ACHD) Program is a collaborative effort between the University of Michigan’s Cardiovascular Center and Congenital Heart Center. Calendar year 2010 was a year of continued growth in clinical volume and progress in both fellow education and research.

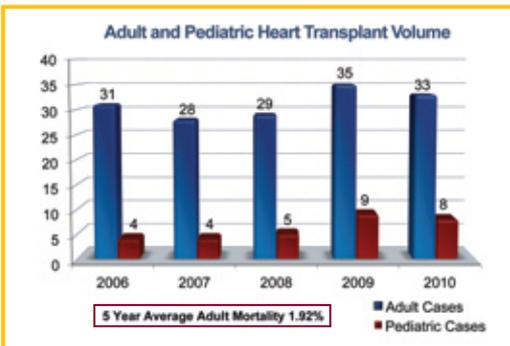


From a clinical standpoint, the program continues to grow at a rate of approximately 75 patient visits per year. The major educational initiative over the last year was the establishment of a training program in ACHD for the adult cardiology fellows. A fourth year fellowship in ACHD is also under development.



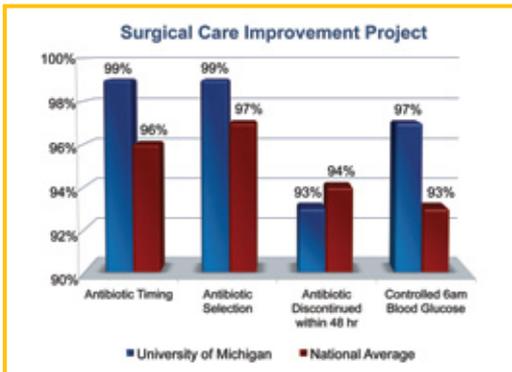
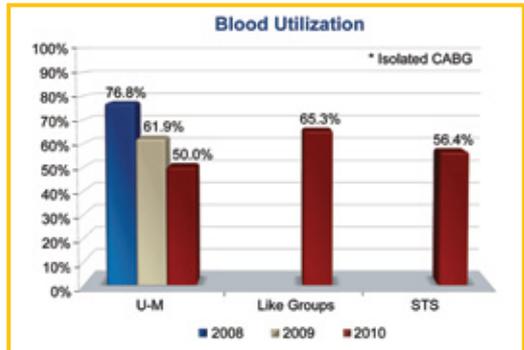
Ventricular Assist Devices (VAD)

The Ventricular Assist Device (VAD) program at the University of Michigan Cardiovascular Center is one of the largest in the country and had a 33% increase in the number of temporary and permanent devices implanted in 2010. This specialized, multidisciplinary program is also managing close to 100 outpatients living with ventricular assist devices.



Quality Improvement

The University of Michigan Health System and the Cardiovascular Center are committed to quality and the safest patient care. The Division of Adult Cardiac Surgery has a robust quality improvement (QI) team with projects focusing on length of stay, blood utilization, and preventing post-operative atrial fibrillation. A multidisciplinary group meets twice a month to share information about patient care. Improvement projects include optimizing length of stay and increasing the number of eligible patients that are extubated within six hours of operation to over 60%. Blood utilization in the operating room is now at or below the national average from the Society of Thoracic Surgeons National Database.



Surgical Care Improvement Project (SCIP) – Process Measures

Quality and safety matter at the University of Michigan. Adult cardiac surgery at the University of Michigan scores close to or above the national average on the Surgical Care Improvement Project (SCIP) process of care measures in 2010.



Patient and Family Centered Care

“Nothing about me without me”

At the heart of the University of Michigan Cardiovascular Center is the belief that providing the ideal care experience stems from a partnership between patients, their families, physicians and staff. As a result, the CVC created a Patient and Family Centered Care (PFCC) Program, which provides a platform for patients and families (advisors) to share their personal experiences and provide input on how the

CVC can improve care for future patients and family members. The PFCC program has sponsored several educational sessions for CVC staff, patients, administrators and faculty. The group has worked on a hand-washing project and created “Dear Doctor” note pads for patients and families to use to write down their questions and notes.



Patient Satisfaction

Our patients have the opportunity to tell us about their care at the University of Michigan CVC. The adult cardiac surgery clinic and the inpatient nursing unit have some of the highest satisfaction scores at the University of Michigan – well over 90%.





New NIH Grants in 2010

Mechanism of Reduced Heart Failure Pathogenesis with Phytochemical Intake

Comparative, Functional, and Molecular Impact of Polyphenols on Dry Bean Mediated Cardio-protection

Dr. Steven Bolling and his research team have been awarded two new basic science NIH grants. The team will look at proteins to reduce heart failure and the mechanism of reduced heart failure pathogenesis with phytochemical intake. The research will also focus on comparative, functional, and molecular impact of polyphenols on dry bean mediated cardio-protection.



REVIVE-IT Study (Randomized Evaluation of VAD Intervention before Inotropic Therapy)

The University of Michigan Cardiovascular Center and the University of Pittsburgh have been awarded a grant to explore the potential benefits of heart devices for the large and growing group of Americans with heart failure.

In REVIVE-IT researchers will compare whether patients with heart failure less advanced than that of current LVAD recipients who are not eligible for a heart transplant do better with implanted devices than with current medical therapy.

Principal investigators include University of Michigan Cardiovascular Center physicians Keith Aaronson, MD, MS, Medical Director of the Heart Transplant Program and Center for Circulatory Support; Francis D. Pagani, MD, PhD, Surgical Director of the Heart Transplant Program and Center for Circulatory Support; and University of Pittsburgh physician Robert Kormos, MD, Director of UMPC Artificial Heart Program and Co-director of the Heart Transplant Program.



Transfers and Patient Referrals

M-LINE: 800.962.3555

Appointments

Adult Cardiac Surgery
888.287.1082
Pediatric Cardiac Surgery
877.262.4628

Allegiance Hospital
517.817.7605

Crittenton Hospital
248.601.6190

Adult Cardiac Surgery Faculty

Steven F. Bolling, MD
G Michael Deeb, MD
Jonathan W. Haft, MD
Francis D. Pagani, MD, PhD
Himanshu J. Patel, MD
Richard L. Prager, MD
Matthew A. Romano, MD

Allegiance Hospital
Mahender Macha, MD
Vincent Simonetti, MD

Crittenton Hospital
Alvise Bernabei, MD
Frank Fazzalari, MD



University of Michigan
Cardiovascular Center

CARDIAC SURGERY AT THE UNIVERSITY OF MICHIGAN

www.surgery.med.umich.edu/cardiac

Executive Officers of the University of Michigan Health System: Ora Hirsch Pescovitz, Executive Vice President for Medical Affairs, James O. Woollicroft, Dean, U-M Medical School; Douglas Strong, Chief Executive Officer, U-M Hospitals and Health Centers; Kathleen Potempa, Dean, School of Nursing.

The Regents of the University of Michigan: Julia Donovan Darlow, Laurence B. Deitch, Denise Ilitch, Olivia P. Maynard, Andrea Fischer Newman, Andrew C. Richner, S. Martin Taylor, Katherine E. White, Mary Sue Coleman (ex officio).

The University of Michigan, as an equal opportunity/affirmative action employer, complies with all applicable federal and state laws regarding nondiscrimination and affirmative action. The University of Michigan is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, national origin, age, marital status, sex, sexual orientation, gender identity, gender expression, disability, religion, height, weight, or veteran status in employment, educational programs and activities, and admissions. Inquiries or complaints may be addressed to the Senior Director for Institutional Equity, and Title IX/Section 504/ADA Coordinator, Office of Institutional Equity, 2072 Administrative Services Building, Ann Arbor, Michigan 48109-1432, 734-763-0235, TTY 734-647-1388. For other University of Michigan information call 734-764-1817.

©2011, The Regents of the University of Michigan.

Produced by Cardiac Surgery and Michigan MultiMedia.

08-11 / 11000