



Cardiac & Vascular Update

June 2009

New Cardiac Catheterization Suite Coming to Bronson

By the end of summer, Bronson Methodist Hospital (BMH) will launch a new cardiac catheterization suite housing four labs and including space for a fifth lab. The new suite will provide greater efficiency and support outstanding customer service. In addition, the suite will consolidate operational processes, maximize technology, and provide optimal patient experience.

Continuity of Care on 3 West

The current cardiac catheterization labs are on the second floor of the East and West Pavilions on BMH's downtown Kalamazoo campus. The new suite will be housed on the third floor of the West Pavilion, creating a single destination for cardiology and peripheral vascular

patients. Occupying the old NICU space and immediately adjacent to the catheterization laboratory will be the Pre Procedure Unit (PPU) and Post Recovery Unit (PRU), which is a suite of all-private rooms. From pre-op to post-procedure, family members and physicians will know the patient will be on 3 West.

These improvements are the direct result of feedback Bronson received from catheterization lab patients in Kaizen events. Patients shared their thoughts about what worked well during their experience and where process improvements could be made.

Cardiovascular PACS

The new cardiac catheterization suite will feature a cardiovascular Picture

Archiving Communications System (PACS), which allows physicians to readily access patient medical records and diagnostic images via the computer. The cardiovascular PACS will allow faster access to cardiovascular reports for attending and referring physicians. In addition, the system allows physicians to direct patient care from off-site locations by accessing patient information through a secure Internet connection.

Learn More

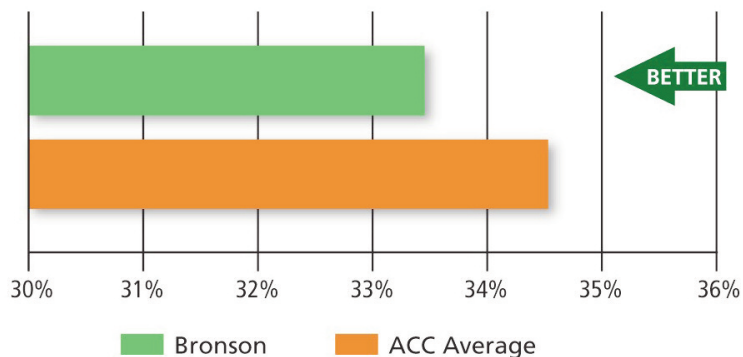
Look for the next edition of *Cardiac & Vascular Update* for more detailed information about the opening of the cardiac catheterization suite at Bronson.

Bronson Assures the Appropriateness of Cardiac Catheterizations

According to the Dartmouth Atlas of Health Care, the inpatient cardiac catheterization rate for the Kalamazoo area is 44 percent higher than the national average. Bronson takes care to assure that we are not contributing to this problem by carefully selecting patients for whom cardiac catheterization is an appropriate diagnostic test and then tracking our results.

Bronson routinely audits the more than 1,800 cardiac catheterizations performed at the hospital annually to ensure adherence to nationally accepted InterQual® criteria (*continued on page 4*)

Percent of Cardiac Catheterizations Without Significant Blockage*



Source: ACC Cath/PCI Registry Jul 2007–Jun 2008

* Defined as Incidence of Obstructive Coronary Artery Disease (CAD): Patients having a left heart catheterization (including only patients with the indications of rule out CAD and/or arrhythmia) where all coronary branches have < 50% stenosis. (Note: if a vessel is not assessed, its stenosis is assumed as 0).

Thomson Reuters 100 Top Hospital® for Heart Care

The 2008 Thomson Reuters 100 Top Hospitals®: Cardiovascular Benchmarks for Success study examined the performance of 970 hospitals by analyzing clinical outcomes for patients diagnosed with heart failure and heart attacks and for those who received CABG surgery and angioplasties.

Bronson achieved high scores across eight performance criteria that reflect the use of evidence-based medicine, good clinical outcomes, high procedure volume, great efficiency and reasonable cost.



Atrial Fibrillation Patients: How to Restore a Higher Quality of Life

Atrial fibrillation (AF) is found in about 2.2 million Americans. Treating AF is an important way to help prevent stroke. About 15 percent of strokes occur in people with AF. That's why the American Heart Association recommends aggressive treatment of this heart arrhythmia.

For patients with AF, there are two approaches to treatment. One approach is to treat the patient with medication that may slow down the rapid heart rate associated with AF. Drugs can sometimes restore the heart's normal rhythm. In this case, the patient still has AF, but the medications help control it, making the patient feel better.

The second approach involves surgical procedures that restore the heart's own rhythm. A common surgery over the last decade is catheter ablation, a minimally invasive procedure that can improve the patient's quality of life. For each person, the severity of symptoms, assessment

of risks, and likelihood of success are major considerations in deciding whether ablation is the right treatment. Trials and studies have shown improved outcomes from this procedure. However, it is not yet known if this can improve mortality. If found true, this procedure could revolutionize treatment of AF.

According to both Joel Reinoehl, MD, Advanced Cardiac Healthcare, and Xiaoke Liu, MD, Heart Center for Excellence, "regardless of approach, it's essential to recognize AF early."

Liu stresses the importance of protecting patients from symptoms. "Patients with many AF symptoms can restore their quality of life by treating AF. I would encourage physicians to consider other options, including surgical procedures, if their patients have symptoms despite medical therapy."

Reinoehl recommends developing a treatment plan for AF, "know that

there are three options:

1. prescribing medication to help the patient feel better while suffering AF,
2. prescribing medication to correct AF and restore the heart's own rhythm,
3. and a surgical procedure to restore the heart's own rhythm."

To learn more, consult with an electrophysiologist. This specialist can help you determine the best treatment plan for your patient.



*Joel Reinoehl, MD
contributed to this
article.*



*Xiaoke Liu, MD
contributed to this
article.*

Tailored Calcium Scores by Age, Gender and Race

Patients with a positive calcium score from the Bronson Heart Scan now have the "age of their arteries" calculated with MESA (Multi-Ethnic Study of Atherosclerosis) scoring, providing a better representation of the patient's arterial health.

Coronary artery calcium (CAC) accumulation, a stage of atherosclerosis, differs significantly among patients of different ethnicities. CAC scores can be used to predict the risk of cardiovascular events. With data from MESA released in 2006, one can calculate the coronary age of a person based on the extent of CAC in that person compared to that of other people of the same age, gender and race.

"We began using MESA scoring at the end of last year," said John A. Freeby, MD, Bronson Advanced Radiology Services radiologist. "With MESA scoring, we now know what is typical or normal for a person based on age and race. This should allow patients to better understand the prognostic significance of their results and may ensure better compliance with preventive treatment."

With this method, a 50-year-old white male with a CAC score of 40 has a coronary age of a 61-year-old white man — for a black man with a score of 40, the coronary age is 70.

The primary care provider is sent the MESA scoring results as part of the report from the Bronson Heart Scan.

MESA results will help the physician determine if further tests, such as a stress test, should be scheduled.

The free calculator, found at mesa-nhlbi.org, can be accessed and duplicated by primary care physicians by inputting the patient's Agatston



*John A. Freeby, MD
contributed to this
article.*

Calcium Score, age and gender.

For more information, visit mesa-nhlbi.org or contact Dr. Freeby at freebyj@bronsonhg.org.

New Cardiac Surgeon Joins Bronson

Bronson Methodist Hospital welcomed Zahir Rashid, MD, as medical director of cardiac surgery in January 2009. Rashid joined the cardiac surgery team of Alphonse DeLucia, III, MD; Michael P. Halpin, MD; M. Michael Khaghany, MD; and Zulfikar A. Sharif, MD at Cardio Thoracic Surgery in Kalamazoo.

Rashid is board certified in General Surgery, Thoracic Surgery and Surgical Critical Care. His special interests include minimally invasive cardiothoracic surgery, beating heart surgery, valve repair, thoracic oncology, aortic surgery and surgery for arrhythmia.

Rashid completed fellowships in thoracic and cardiovascular surgery at Medical College of Wisconsin, and



Zahir Rashid, MD

College and critical care at New York Medical College. Rashid completed his internship and received his medical degree from R. G. Kar Medical College Hospital in Calcutta, India. Most recently he has been in medical practice at Marshfield Clinic in Marshfield, Wisconsin.

He is a member of the American Medical Association, American College

surgical critical care at New York Medical College. He completed residencies in general surgery (chief resident) at Cornell Medical College and New York Medical

of Chest Physicians, American College of Surgeons, Society of Thoracic Surgeons and The American College of Cardiology.

Cardiovascular services performed by the Cardio Thoracic Surgery team at Bronson include prevention and education, early detection, minimally invasive procedures, surgical interventions, personalized rehabilitation programs, and home telemonitoring. Learn more about the future of thoracic and cardiovascular surgery at Bronson below.

Cardio Thoracic Surgery is located in the Medical Office Pavilion at Bronson Methodist Hospital, 601 John St. in Kalamazoo. The surgeons may be reached at (269) 344-7000.

The Future of Cardiovascular and Thoracic Surgery

Cardiac surgery continues to advance at a rapid pace with new technology, procedures and progressive surgeons. Among the trends emerging in cardiac surgery are off-pump surgery, minimally invasive heart surgery, robotic-assisted surgery, and bloodless medicine.

Off-pump surgery

Zahir Rashid, MD, (*see article above*) is an expert in off-pump beating heart surgery. Approximately 98 percent of his cases are off-pump. This area of expertise gives patients one more option for heart surgery, including patients with multi-vessel coronary artery disease. Patients who were not considered for bypass surgery in the past due to poor lung condition, kidney function or poor heart contraction, can now be considered for bypass with a minimally invasive approach.

Off-pump surgery has been shown to improve patients' outcomes and decrease the cost of healthcare. This procedure also can reduce the rate

of complications related to traditional heart surgery, as well as shorten the length of the hospital stay. In addition, it has been found to reduce the incidence of renal failure, stroke, respiratory failure, and bleeding, resulting in fewer patients requiring a blood transfusion.

Minimally invasive heart surgery

Benefits of minimally invasive heart surgery

- Smaller incisions
- Smaller scars
- Reduced infection risk
- Less blood loss
- Less pain
- Shorter hospital stays
- Fewer physical restrictions
- Shorter recovery time

The next phase of minimally invasive heart surgery lies in valve surgery and arrhythmia surgery.

Robotic-assisted Heart Surgery

Robotic-assisted surgery is changing the way certain heart operations are performed. It allows surgeons to perform certain types of complex heart surgeries with smaller incisions and precise motion control, offering patients improved outcomes.

Patients benefit from robotic-assisted cardiac surgery through smaller incisions, a shorter hospital stay, less pain, less risk of infection, less blood loss, less need for transfusions, less scarring, faster recovery, and faster return to daily activities.

Rashid envisions establishing a minimally invasive and robotic-assisted thoracic and cardiac surgery program at Bronson.

Bloodless Medicine

Blood conservation provides medical and surgical care while reducing or eliminating blood transfusions. It provides a better way to manage the community (*continued on page 4*)

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The Future of Surgery

(continued) blood supply. In addition, it offers choices for people who choose not to have a blood transfusion.

Benefits of blood conservation during cardiac surgery

- hospital stay decreased by nearly three days on average
- significantly fewer complications post-op
- mortality rates lower

Other benefits

- less exposure to new viruses and infections
- less risk of using old donor blood that may not be as good for the patient
- fewer infections after having surgery or treatment
- faster recovery
- better outcomes after surgery or treatment

These innovations are changing the face of cardiac surgery, producing improved clinical outcomes, with greater efficiency, at more reasonable cost. Setting the new standard for cardiac surgery, these procedures will lead to patient outcomes that continue to be among the best in the nation.

At Bronson, the cardiac surgery team is embracing the future of cardiac surgery through our focus on clinical excellence to support our vision of being a national leader in healthcare quality.

Zahir Rashid, MD contributed to this article.

Appropriateness

(continued) for procedure appropriateness. In 2008, 96 percent of the cases audited demonstrated clearly documented evidence of meeting the appropriateness criteria.

Another way to evaluate appropriateness is to look at the percent of cardiac catheterizations without significant blockage. **Bronson is performing better than the ACC Database rate of 34.5 percent.*** This means Bronson is very effective at case selection and minimizing unnecessary risk, disruption and cost to our patients and community.

HealthGrades® Best Rated for Overall Cardiac Care

Bronson is best rated in southwest Michigan for overall cardiac care by HealthGrades®, the nation's leading healthcare ratings company. Bronson also earned a five-star rating, the highest possible, for the treatment of heart failure. In addition, the hospital was one of only 270 hospitals and the only hospital in southwest Michigan to achieve the 2009 Distinguished Hospital for Clinical Excellence honor; placing it among the top five percent of hospitals in the nation in terms of mortality and complication rates across a comprehensive range of procedures and diagnoses.

