

From the
Medical Director



Dear Colleague,

This issue of *Heart and Vascular Update* explores several exciting new technologies that may be of benefit to your patients with cardiac disease.

Physicians have hoped for almost 20 years to see the benefits of regenerative stem cell therapy for cardiac disease. Now a new wave of clinical trials brings that promise closer to reality. The Carl and Edyth Lindner Research Center currently participates in four clinical trials (detailed on page 4) that explore stem cell therapies for survivors of myocardial infarction, patients with advanced heart failure and patients with medically refractory angina. If these therapies prove successful in larger-scale clinical trials, stem cell therapy offers tremendous potential for both repairing damaged myocardium and/or supporting optimal function of remaining heart tissue.

For patients who need aortic valve replacement and who are poor candidates for conventional surgical aortic valve replacement, we have already seen dramatically positive results from transcatheter aortic valve replacement (TAVR) which does not require open heart surgery. TAVR offers a less invasive approach and more rapid recovery for patients considered frail for open heart surgery. TAVR made it possible for patients like Gary Hamm and Donald Grob (see story on page 6) to share more treasured moments with their loved ones.

In addition, we would like to call your attention to an important change in Medicare policy. Thanks to the recently enacted SAAVE act, patients entering Medicare can receive a free, one-time ultrasound screening for abdominal aortic aneurysm. We encourage you to share this news with your patients.

Sincerely,

Dean J. Kereiakes, M.D.
Medical Director,
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Medicare Covers Screening Ultrasounds for Abdominal Aortic Aneurysm

An estimated 2 million Americans are living with undiagnosed abdominal aortic aneurysms (AAA). But free, one-time screening tests available to people entering Medicare can help reduce risks posed by the 13th leading cause of death in the United States.

If an undetected aneurysm ruptures, mortality is 85 to 90 percent. Yet most patients suffering from AAA are asymptomatic, making the availability of screening ultrasound tests vital.

SAAVE Act offers help

Thanks to the Screening Abdominal Aortic Aneurysms Very Efficiently (SAAVE) Act, at-risk patients entering Medicare can receive a free, one-time ultrasound screening for AAA. The act allows for the screening as part of the "Welcome to Medicare Physical Exam," officially known as an Initial Preventative Physical Examination. To be covered by Medicare, the AAA screening ultrasound must be ordered at the time of the Welcome to Medicare Physical Exam, and must be performed within the first year of Medicare enrollment.

AAA screening is recommended for at-risk patients including those with a history of smoking • over 60 years of age • family history of AAA • hypertension • COPD • hyperlipidemia • coronary artery disease • prior CABG

Few clear symptoms for AAA

Diagnosing AAA can be difficult because most patients are asymptomatic. Some patients might complain of vague, constant or throbbing abdominal or back pain. If the AAA is rapidly expanding, the patient might experience intense pain. AAA should be considered for any elderly patient with abdominal, flank or back pain.

Some gastrointestinal symptoms also can occur. For example, early satiety, nausea and weight loss might indicate abdominal compression caused by AAA. Additionally, AAA should be considered for lower extremity emboli if a cardiac cause has already been ruled out.

Patients should be questioned about their lifestyle and family medical histories. A tender, pulsatile mass also may be palpable upon examination.



Ultrasound test can detect AAA

If you have a patient that might be at risk for AAA, order an abdominal ultrasound or refer the patient to a cardiovascular specialist.

Patients diagnosed with an abdominal aortic aneurysm should undergo formal imaging at regular intervals with ultrasound, CT angiography or MRA. A paradigm based on aortic diameter is listed in the chart below.

AAA Diameter	Imaging Interval
3.0 cm— 4.0 cm	Yearly
4.0 cm— 4.5 cm	Every 6 months and vascular referral
> 4.5 cm	Every 6 months and vascular referral if not already done
> 5.0 cm	Immediate vascular referral for repair

Current criteria indicate repair should be performed once the aneurysm has reached 5 cm. However, a referral is helpful once the aneurysm reaches 4 cm. Establishing a doctor-patient relationship is extremely beneficial prior to an operation of this magnitude.

Most can be treated without open surgery

Treatment for an abdominal aortic aneurysm requires either open surgical repair or endovascular repair (EVAR).

Open surgical repair has been performed successfully since the 1950s. The procedure consists of isolating the aortic aneurysm via laparotomy and replacing it with a synthetic graft. However, some patients are not candidates for surgery due to age and chronic comorbidities.

EVAR is less invasive than open surgical repair and is appropriate for 80 to 90 percent of patients, allowing repairs in many patients that otherwise would be considered inoperable. EVAR involves delivering a self-expanding graft into the abdominal aorta via catheter along the femoral artery. These flexible stent grafts conform to the structure of the normal aorta above and below the aneurysm.

EVAR treatment has resulted in low incidence of complications, a very low morbidity rate, less loss of blood during the procedure, shorter hospital stays and shorter recovery times.

Symptoms

Pulsating mass in the abdomen; abdominal, flank, or back pain; lower extremity emboli; early satiety, nausea, weight loss

Tests available from The Carl and Edyth Lindner Research Center at The Christ Hospital

Abdominal ultrasounds are available at several Christ Hospital Cardiovascular Testing Centers.

Appointments can be scheduled by calling 513.585.2668.

For those patients not eligible for free vascular screenings, the tests are available for \$99, which also includes ultrasound of the carotid and peripheral arteries.

If an aneurysm has been diagnosed, call 513.206.1170 to schedule an appointment with a Christ Hospital surgeon.