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**CUTTING-EDGE DIAGNOSTICS, PROCEDURES CUT COSTS, TIME
ASSOCIATED WITH DIAGNOSING AND TREATING CARDIAC EPISODES**

ATLANTA, GA (March 14, 2006) — Scientists presented a novel diagnostic tool aimed at cutting the time and costs needed to evaluate acute chest pain, as well as updated pre-hospital protocol to quickly diagnose and treat heart attacks today at the American College of Cardiology Annual Scientific Session. ACC.06 is the premier cardiovascular medical meeting, bringing together over 30,000 cardiologists to further breakthroughs in cardiovascular medicine.

Immediate Coronary Artery Computed Tomographic Angiography Rapidly and Definitively Excludes Coronary Artery Disease in Low-Risk Acute Chest Pain (Abstract 807-8)

When patients complain of acute chest pain, physicians often implement time-consuming and expensive procedures to rule out the possibility of a heart attack or other serious coronary complication. Researchers from the William Beaumont Hospital in Michigan evaluated the use of Computed Tomographic Angiography (CTA), a quick examination that uses x-rays to track blood flow in the veins and arteries and provide a 3-D image of the heart, to exclude coronary artery disease (CAD) as the cause of acute chest pain. The team found that CTA alone quickly and accurately ruled out significant CAD in 89 percent of cases, and CAD was correctly assessed in 100 percent of the CTA patients.

Study authors randomized 200 patients with low-risk acute chest pain to either an immediate 64-slice CTA or a standard of care evaluation, which includes an electrocardiogram (EKG), serial cardiac enzymes and rest-stress nuclear scanning. CTA quickly ruled out CAD in most cases, with reducing the total time patients spent in the emergency room by 45 percent. In

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addition to saving time, CTA was approximately \$300 less expensive per patient than standard of care procedures. In the study, both the CTA group and the standard of care group had similar demographics, risk factors and Thrombolysis in Myocardial Infarction risk scores, a test used to determine a patient's risk of mortality.

"Our study shows that CTA can rapidly and definitively exclude CAD as the cause for acute chest pain," said Gilbert L. Raff, M.D., William Beaumont Hospital and lead author of the study. "Immediate use of CTA helps reduce a patient's length of hospital stay and decreases overall cost without putting the patient at increased risk."

Lower Mortality Rate With Paramedics Interpreting the Electrocardiogram Coupled to Primary Percutaneous Angioplasty for ST-Segment (Abstract 815-7)

Advanced care paramedics (ACP) – paramedics with advanced cardiac life support training – are often the first healthcare professionals to see patients exhibiting symptoms of ST-elevation myocardial infarction (STEMI), one type of heart attack. While previous studies have overlooked the ACP role in pre-hospital heart attack management, study authors from the University of Ottawa Heart Institute in Canada assessed the ability of ACPs to accurately identify the STEMI condition and optimize treatment by taking patients directly to a specialized cardiac facility, bypassing standard emergency room protocols. Results showed that mortality dropped significantly, from about 9 percent in the control group to less than 2 percent in the group treated under the STEMI protocol.

ACPs received training in electrocardiogram (ECG) interpretation to identify the STEMI waveform. They independently evaluated patients and brought 108 potential heart attack patients exhibiting the STEMI pattern directly to a primary PCI cardiac facility, bypassing the emergency room. Researchers compared these patients to a control group of 225 patients who were brought to the hospital emergency room by ambulance. For ACP-referred patients, the total time between entering the hospital and undergoing primary PCI was 63 minutes, in contrast to 125 minutes for those control group patients who were also treated with primary PCI. Only 9 percent of the non-ACP-referred patients received primary PCI whereas 94 percent of ACP-referred patients received the treatment. None of the ACP-referred patients received thrombolytic therapy, a medication used to thin blood clots, which was the first-line treatment for a majority of non-ACP-referred patients (80 percent).

"With appropriate training, advanced care paramedics can accurately refer STEMI heart attacks, enabling patients to bypass emergency rooms for diagnosis and head directly to cardiac departments," said Michel Le May, M.D., University of Ottawa Heart Institute and lead author of the study. "This significantly reduces the amount of time patients spend waiting for treatment after entering the hospital, and, in combination with optimal treatment, significantly lowers mortality rates."

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The American College of Cardiology (www.acc.org) represents the majority of board certified cardiovascular physicians in the United States. Its mission is to advocate for quality cardiovascular care through education, research, promotion, development and application of standards and guidelines- and to influence health care policy. ACC.06 and the ACC inaugural i2 Summit, the first-ever meeting for interventional cardiologists, will bring together more than 30,000 cardiologists and cardiovascular specialists to share the newest discoveries in the treatment and prevention, while helping the ACC achieve its mission to address and improve issues in cardiovascular medicine.