SAN FRANCISCO — In some patients, a Scoring System Might Reduce Need for Stress Tests. One group followed 785 patients aged 25 to 64 years who were found to have normal cardiac function. They were then assigned to one of three groups: patients with a score of 20 or less, patients with a score of 21 to 30, and patients with a score of 31 or more. The patients with a score of 20 or less had a lower rate of events (death, myocardial infarction, or revascularization) than the other two groups. The investigators concluded that the ACI-TIPI score might be useful in predicting the need for stress testing in this patient population.

SAN FRANCISCO — A new Cardiac Arrest Detection System has been developed that uses electrocardiographic monitoring to detect cardiac arrest. The system, called the ACI-TIPI (Acute Coronary Ischemia–Time Insensitive Predictive Instrument), was designed to identify patients at risk for acute coronary ischemia. The investigators compared the ACI-TIPI score with the standard 12-lead ECG, and found that the ACI-TIPI score was more sensitive than the 12-lead ECG in identifying patients at risk for acute coronary ischemia. The investigators concluded that the ACI-TIPI score might be useful in identifying patients at risk for acute coronary ischemia.

NEW ORLEANS — T weaking emergency dispatcher assessment protocols to include simple questions about agonal breathing markedly boosts the rate of cardiac arrest detection over the phone, Ahmad H. Idris, M.D., reported at the annual scientific sessions of the American Heart Association. The result is a greater than 30% increase in the number of patients who receive CPR through emergency medical services (EMS) personnel arrive. That increases the chances for survival. The investigators compared the ACI-TIPI score with the standard 12-lead ECG, and found that the ACI-TIPI score was more sensitive than the 12-lead ECG in identifying patients at risk for acute coronary ischemia. The investigators concluded that the ACI-TIPI score might be useful in identifying patients at risk for acute coronary ischemia.

SAN FRANCISCO — An ECG mapping device improved the diagnosis of acute coronary syndrome, compared with standard ECG, and provided information that could help treat patients. In a study of 90 adult patients, those evaluated in the emergency department for acute coronary syndrome by ECG and cardiac markers underwent both the standard 12-lead ECG and cardiac mapping using the Prime ECG System. Approved in 2001, the Prime ECG uses 72 unipolar leads placed in a vest-like distribution over the front, back, and sides of the patient’s torso to obtain a three-dimensional view of cardiac electrical activity. Standard ECG uses six unipolar leads. Both ECG systems use additional limb leads. The investigators compared physicians’ responses with the diagnostic accuracy of the acute coronary syndrome. Estimates based on cardiac mapping were more sensitive than estimates based on standard ECG at identifying acute coronary syndrome (46% vs. 20%). Standard ECG and cardiac mapping showed similar specificity (93% vs. 92%, respectively) in diagnosing acute coronary syndrome, said Dr. Ferrmann, director of clinical operations at the University of Cincinnati. Physicians in the study said that cardiac mapping provided additional diagnostic information in 51 of the 90 cases and said the results would assist in treatment in 53 cases, Dr. Ferrmann reported. The cardiac mapping results increased the likelihood of a diagnosis of acute coronary syndrome in 11 cases and decreased the likelihood in 32 cases. Cardiac mapping was more sensitive than standard ECG in diagnosing a subset of patients who had acute coronary syndrome, those with non-ST segment elevation MI.

The Questions Dispatchers Should Ask

- Is the person awake and conscious?
- Is the person breathing normally? Count the breaths and listen to what they sound like. (An interval of 10 or more seconds between breaths is a marker for agonal breathing and an indication to start CPR.)
- Is the person moving?

Device Improves Diagnosis of Acute Coronary Syndrome

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — An ECG mapping device improved the diagnosis of acute coronary syndrome, compared with standard ECG, and provided information that could help treat patients. In a study of 90 adult patients, those evaluated in the emergency department for acute coronary syndrome by ECG and cardiac markers underwent both the standard 12-lead ECG and cardiac mapping using the Prime ECG System. Approved in 2001, the Prime ECG uses 72 unipolar leads placed in a vest-like distribution over the front, back, and sides of the patient’s torso to obtain a three-dimensional view of cardiac electrical activity. Standard ECG uses six unipolar leads. Both ECG systems use additional limb leads. The investigators compared physicians’ responses with the diagnostic accuracy of the acute coronary syndrome. Estimates based on cardiac mapping were more sensitive than estimates based on standard ECG at identifying acute coronary syndrome (46% vs. 20%). Standard ECG and cardiac mapping showed similar specificity (93% vs. 92%, respectively) in diagnosing acute coronary syndrome, said Dr. Ferrmann, director of clinical operations at the University of Cincinnati. Physicians in the study said that cardiac mapping provided additional diagnostic information in 51 of the 90 cases and said the results would assist in treatment in 53 cases, Dr. Ferrmann reported. The cardiac mapping results increased the likelihood of a diagnosis of acute coronary syndrome in 11 cases and decreased the likelihood in 32 cases. Cardiac mapping was more sensitive than standard ECG in diagnosing a subset of patients who had acute coronary syndrome, those with non-ST segment elevation MI.