Roche Diagnostics announced that eight Canadian hospital emergency departments will be participating in a multicentre randomized clinical trial to demonstrate the clinical utility and cost-effectiveness of N-terminal pro-brain natriuretic peptide (NT-proBNP) for the management of congestive heart failure (CHF).

IMPROVE-CHF CANADA, involving a total of 650 evaluable patients with acute shortness of breath, will compare the performance, cost-effectiveness, and prognostic value of NT-proBNP to current methods of CHF diagnosis.

“Clearly there are clinical measures that can be used to help predict mortality risk in patients who are hospitalized with heart failure,” said Clyde W. Yancy, director of the congestive heart failure/heart transplant program at the University of Texas Southwestern Medical Center and principal investigator of the study.

“This ADHERE observational study marks an important step towards determining how heart failure patients might be better triaged and cared for in-hospital, and how we might improve clinical outcomes, especially in patients at high risk of mortality.”


ADHERE® presents indicators for distinguishing patient risk

Data presented by ADHERE®, the world’s largest heart failure registry, identified clinical indicators that may be used to predict risk of mortality in heart failure patients. The analysis evaluated 65,180 acutely decompensated congestive heart failure patient cases to identify clinical measures that distinguished heart failure patients at high risk of in-hospital mortality from those at low risk.

Those determined to have high risk (20.5% average mortality, compared to 2.2% for low-risk patients) were identified with blood urea nitrogen ≥ 43 mg/dL, systolic blood pressure < 115 mmHg, and serum creatinine ≥ 2.75 mg/dL.

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**CARDIOVASCULAR NEWS**

**First device to measure fluid buildup associated to heart failure**

Medtronic of Canada Ltd. announced that InSync Sentry™ cardiac resynchronization therapy defibrillator (CRT-D) had been approved for release by Health Canada. This is the first implantable device to signal dangerous fluid buildup associated with heart failure.

Heart failure, affecting about 460,000 people in Canada, is responsible for more hospitalizations than all cancers combined and costs Canadian health-care systems $1.4 to $2.3 billion per year. Most hospital admissions are due to fluid buildup in the lungs, which often goes unnoticed until the patient is critically ill.

“By knowing [fluid buildup status], we may be able to prevent a patient from being admitted to hospital, or from suffering the consequences of worsening heart failure,” says Dr. Peter Liu, director of Heart and Stroke/Richard Lewar Centre of Excellence.

The new feature of the InSync Sentry, OptiVol™ Fluid Status Monitoring, measures changes in intrathoracic impedance, an indication of the patient’s fluid volume. Physicians set a threshold and if the threshold is crossed, the patient and physician are alerted. Fluid levels can vary for each patient.


**Teveten® in the reduction of stroke recurrence**

The morbidity and mortality after stroke (MOSES) study showed that Teveten® (eprosartan) effectively protects against cerebrovascular and cardiovascular events in hypertensive patients who have previously had a stroke. MOSES is the first study to compare antihypertensive treatment in patients with a history of stroke. The results showed blood pressure was just as well-controlled when hypertensive patients with a history of stroke used Teveten-based or nitrendipine-based therapies. With Teveten, total mortality, as well as total cardiovascular and cerebrovascular events, were significantly reduced. Results showed a 25% reduction in the recurrence of stroke, related disease, and prolonged neurologic deficit, and a 30% reduction in first-time cardiovascular events.

More than 20 million people worldwide suffer a stroke/year; the 75% who survive are left with considerable disability. A patient may never fully recover and is at a 15 times greater risk than the rest of the population of having another stroke. The MOSES study has shown the efficacy of Teveten in reducing stroke recurrence and may have a great implication on the choice of antihypertensive medications prescribed.