



NEW BIOMARKERS: SUBSTANTIAL SUCCESS IN THE IMPROVEMENT OF DIAGNOSIS OF PATIENTS SUFFERING FROM SHORTNESS OF BREATH

BACH study shows that MR-proANP adds additional information on standard of care in the diagnosis of acute congestive heart failure. The use of PCT together with MR-proANP supports the differential diagnosis of pneumonia and congestive heart failure.

Hennigsdorf (Berlin), Germany, September 2008 – A B·R·A·H·M·S AG sponsored worldwide multi-center study with more than 1600 patients reveals equivalence of MR-proANP (mid-regional atrial natriuretic peptide) to BNP and NT-proBNP for the diagnosis of patients with acute congestive heart failure (CHF) presenting to the emergency department (ED) with shortness of breath (SOB). Especially in diagnostically challenging big subgroups of patients with obesity (BMI ≥ 30 kg/m²), higher age (≥ 70 years), renal dysfunction or BNP values in the so-called grey zone (≥ 100 and < 500 pg/mL) the BACH study demonstrates additional value for the use of MR-proANP in these patients.

Adding PCT (procalcitonin) as a marker of bacterial infection in a model with basic clinical variables supports the clinically very important differential diagnosis of pneumonia and congestive heart failure in patients presenting to the emergency department with shortness of breath; this condition was present in a substantial number of the patients having a primary diagnosis of acute CHF.

The study allowed the BACH investigators to conclude:

- 1) MR-proANP is equally useful as BNP and NT-BNP in the diagnosis of acute heart failure.
- 2) In patient subgroups where BNP and NT-proBNP values prove difficult to interpret, MR-proANP provides additive value for the diagnosis of acute heart failure.
- 3) A combination of the biomarkers PCT and MR-proANP helps in the discrimination of patients with pneumonia in comparison to those with heart failure.

“Previous retrospective data from our markers were already very good, but the recent BACH data exceeded our expectations by far”, said Andreas Bergmann PhD, Head of Research & Development and Member of the Board. “It is our goal to provide highly effective biomarker assays to support physicians in the management of severely ill patients. Therefore, the highly positive BACH data are very important and improve daily clinical practice.”

Additional results of the BACH trial are scheduled for publication during the upcoming AHA (American Heart Association) congress in New Orleans in November 2008.

About Shortness Of Breath SOB

Shortness Of Breath (SOB), also called “breathlessness” or dyspnea is a difficulty in breathing or painful breathing. It is caused by various mechanisms related to different problems in the body. In one’s lifetime, one may experience rare episodes of SOB as part of i.e. high levels of physical activity or at high altitude. However, under normal conditions SOB is commonly a sign of a medical problem. In many cases, the primary problem behind SOB involves heart, lung or neuromuscular abnormalities.



About BACH

The BACH (**B**iomarkers in **A**cute **C**ongestive **H**eart failure) trial is an international, multi-marker study evaluating the diagnostic and prognostic accuracy of B·R·A·H·M·S markers in patients presenting with SOB. In this prospective study more than 1600 patients were enrolled at 15 investigation sites.

The BACH study executive committee was chaired by Prof. Alan Maisel from the Veterans Affairs Medical Center, San Diego/USA, and Prof. Stefan Anker from Charité Berlin, Berlin/Germany.

The first primary endpoint was non-inferiority of MR-proANP to BNP for the diagnosis of acute heart Failure in patients presenting to the ED with SOB. The second primary endpoint was to test for prognostic superiority of MR-proADM to BNP of patients with heart failure (will be shown at the AHA 2008 meeting).

About B·R·A·H·M·S

B·R·A·H·M·S develops and distributes innovative biomarker tests worldwide through own sales organizations, distributors and licensees. These products improve patient management of medically critical and economically relevant diseases. Based on its own extensive proteomic research program, B·R·A·H·M·S continuously identifies innovative biomarkers to the benefit of severely ill patients. With its more than 350 employees the company constantly strives to extend the large patent-protected portfolio of new test panels for bacterial infections, sepsis, community-acquired pneumonia and COPD as well as cardiac diseases and other clinical applications. Recent findings such as from the international multi-centric clinical trial project "BACH" will be continued by further large study projects to improve diagnosis, therapy monitoring and prognosis of life threatening diseases.

B·R·A·H·M·S Aktiengesellschaft has its headquarters in Hennigsdorf near Berlin, Germany. For more information, go to www.brahms.de and www.procalcitonin.com