New Study Results Find That The Blood Biomarker MR-proADM May Prevent Early Hospital Discharge in Patients with Developing Sepsis

Multi-centre analysis shows that incorporation of MR-proADM (mid-regional proadrenomedullin) into an early management of patients with suspected infection protocol may aid rapid clinical decision making in the emergency department

HENNIGSDORF, Germany, May 2, 2019 /PRNewswire/ -- Results from the multi-centre study titled "The early identification of disease progression in patients with suspected infection presenting to the emergency department" have been published in the February issue of Critical Care. In this study, the testing 1175 patients presenting to six European emergency departments (ED) with an initial diagnosis of infection were prospectively enrolled and validated by a secondary analysis of 896 patients with suspected infection from previously published multi-centre study[1].

The inappropriate discharge of patients in the early stages of sepsis development is a serious, life-threatening consequence of the complex pathophysiological signs of infection. Indeed, all infections have the potential to manifest into life-threatening conditions, depending on the virulence of the infecting organism and the subsequent pathophysiological host response. Despite a high emphasis being placed on an early identification of patients with sepsis within the ED, failure to identify those with initially low severities, but a high potential for subsequent disease development and progression towards sepsis may lead to either a delayed therapeutic response or inappropriate discharge decisions.

"In our study the biomarker MR-proADM was found to most accurately identify the patients with a high likelihood of further disease progression, compared to all other biomarkers and clinical scores. Incorporation of MR-proADM in an early sepsis management protocol may aid early decision-making in the ED in order to initiate, escalate or intensify further treatment strategies," said Dr. Kordo Saeed, consultant clinical microbiologist at Hampshire Hospitals NHS Foundation Trust in Winchester and Basingstoke (UK). "Conversely, MR-proADM could also accurately identify patients with low severity, uncomplicated infections, potentially allowing a safer discharge and out-patient management, lowering readmission rates."

Increased levels of Adrenomedullin (ADM) are generated in disease conditions in order to stabilize the microcirculation and protect against vascular permeability[2]. However, the reliable measurement of ADM is complicated by its short half-life and rapid degradation. The stable fragment of the peptide, MR-proADM, allows the accurate quantification of incremental changes over the course of therapy. Recent evidence highlights the use of MR-proADM as a highly sensitive biomarker to assess disease severity in patients with sepsis[3,4], with concentrations rapidly induced in the initial stages of sepsis development following burns[5] and neurological disorders[6], as well as in response to invasive fungal infections in septic shock patients[7].

For more information, please see the following site: thermoscientific.com/proadrenomedullin

B·R·A·H·M·S MR-proADM KRYPTOR is CE marked but not 510(k)-cleared and not available for sale in the U.S. Availability of product in each country depends on local regulatory marketing authorization status.

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Contact Information: Dr. Rita Baxmann
Phone: +49 3302 883 303
E-mail: rita.baxmann@thermofisher.com

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