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Roche Launches Improved Point-of-Care Test to Help Diagnose High Risk Heart Attack Patients

- The Roche test enables healthcare professionals to identify patients with a suspected heart attack in the pre-hospital setting, helping ensure correct diagnosis and immediate, appropriate intervention.

Roche (SIX: RO, ROG; OTCQX: RHHBY) has announced that its improved CARDIAC point-of-care Troponin T test for the cobas h 232 system is now available for countries accepting the CE Mark. The test allows healthcare professionals to identify patients with a suspected acute myocardial infarction (AMI), with greater accuracy, in just 12 minutes.

This hand-held, point-of-care diagnostic system requires no sample preparation or lengthy setup procedures. Therefore, it can be used in places where heart attack patients are often seen first, such as in an ambulance, emergency room, or a primary care/general practitioner's office.

The additional benefit of the improved test is that it is a quantitative test with higher accuracy (40-2000ng/L), making it possible to measure Troponin T levels ≥ 50ng/L, to rule-in patients with a suspected AMI and triage them effectively. This approach is endorsed by the preHAP clinical study, which showed that pre-hospital patients with a suspected AMI and a POC Troponin T ≥ 50ng/L had a 3-10 times higher long-term mortality risk1.

"Point-of-care diagnostics solutions play an integral role in an effective, sustainable healthcare, and their importance will further increase", stated Roland Diggelmann, Chief Operating Officer, Roche Diagnostics Division. "The introduction of this improved test enables health care professionals to make earlier and more accurate interventions to save patients' lives."

Based on the test results, high risk patients may immediately be sent directly to a cardiac catheterization laboratory, where diagnostic imaging equipment can visualize the arteries of the heart and allow health care professionals to make the appropriate interventions. Lower risk patients can be sent to the hospital ward for further investigation. This approach helps save time, costs and potentially lives by reducing the time to correct treatment; facilitating the direct admission of patients to hospitals with the necessary testing equipment.

"Portable, accurate and easy-to-use, the CARDIAC point-of-care Troponin T test allows frontline healthcare providers to quickly make confident decisions where to send patients for treatment", said Jean-Claude Gottraux, Head of Roche Professional Diagnostics.

The CARDIAC point-of-care Troponin T test is standardized and compatible with central lab testing. After initial POC testing to diagnose patients in the ambulance (or GP's office), it can then be combined with a later test using the Elecsys® cardiac Troponin T high-sensitive (cTnT-hs) test, at the central laboratory in a hospital. This means Roche can offer a diagnostic solution that covers from the assessment of pre-hospital and hospital patients, with a suspected AMI, to the treatment decision.

In Europe and the USA alone, 15-20 million patients present to the emergency department annually, with a sudden onset of chest pain and symptoms suggestive of Acute Myocardial Infarction.2 Patients with chest pain and other symptoms suggestive of AMI account for approximately 10% of all emergency room consultations.3

A heart attack is a common cardiac event in which the blood supply to an area of the heart is interrupted, causing the muscle cells to die. The mortality rate of AMI is the highest within hours of onset and an early diagnosis and initiation of treatment greatly impact prognosis.4 The 2014 European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS) 5 guidelines recommend that Troponin-positive (high-risk) non–ST-Segment Elevation Acute Coronary Syndrome patients have coronary angiography (CAG) within 24 hours, compared to the previous recommendation of 72 hours. This demands early triage of high-risk patients before hospital admission.

More about cobas h 232 POC system

The cobas h 232 point-of-care diagnostic system enables healthcare professionals to identify high-risk patients in 12 minutes, thanks to a technically elaborate but easy to use system. The intuitive user interface and the easy utilization of test strips ensure that healthcare professionals do not lose time in an emergency. In addition to the new CARDIAC point-of-care Troponin T test, the system can also test NT-proBNP, D-dimer, CK-MB and myoglobin, to facilitate rapid diagnosis of acute coronary syndrome, heart failure and pulmonary embolism. The results of these point-of-care testing solutions have demonstrated a high level of consistency with standard laboratory testing methods.

More about Troponin

Troponin is a heart muscle protein that is released into the blood stream during a heart attack. A limitation of the earlier generations of blood tests is the time required to detect the troponin release, sometimes up to six hours, as described in the current ESC guidelines. Fast and reliable heart attack diagnosis is critical as every hour of delay from the onset of symptoms to treatment, increases the mortality risk.6

More about the cardiac troponin T high-sensitivity test from Roche

The Elecsys® cardiac Troponin T high-sensitive (cTnT-hs) test from Roche detects cardiac troponin which is the preferred biomarker for heart attack in clinical practice. In combination with an electrocardiogram (ECG), it has become the gold standard for the diagnosis. The high sensitivity of the Roche cTnT-hs assay in conjunction with this novel procedure significantly accelerates "rule-in" and "rule-out" decision-making, thereby maximizing the potential for effective treatment. At the same time, the faster decision-making may help to streamline the emergency room workload and lighten the burden on healthcare systems.

References
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