

Thermo Fisher Scientific's Biomarker B-R-A-H-M-S Copeptin now in the 2015 guidelines of the ESC



New diagnostic pathway allows instant rule out of Acute Myocardial Infarction (AMI) with a combination of copeptin and troponin

The recently released guidelines by the European Society of Cardiology (ESC) suggest that using measurements of copeptin level together with troponin level is the only new diagnostic pathway that allows an instant and fast rule-out of Acute Myocardial Infarction (AMI) with just one measurement of both biomarkers at admission.

During the 2015 ESC congress in London, the new "2015 ESC guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation" were presented.¹ These guidelines for rule-in and rule-out of AMI followed mainly the recommendations of the 2011 ESC guidelines and confirm the recently published recommendations by the German Society of Cardiology.

Copeptin in combination with troponin is recommended by the ESC for a fast rule-out of AMI especially when using conventional troponin assays; this corresponds to a class 1a recommendation according to the guidelines grading system based on scientific publications and meta-analysis.^{2, 3, 4} The ESC guidelines recommend copeptin in combination with hs-troponins, according to a class 2b recommendation: "Copeptin may have some added value even over high-sensitivity cardiac troponin in the early rule out of AMI."

"Following the BIC-8 interventional trial, the ESC recognizes the safety and efficacy of copeptin recommending its routine use as an additional biomarker for early rule-out of AMI in combination with troponin," said Professor Evangelos Giannitsis, University Hospital Heidelberg, Medizinische Klinik, Innere III, Heidelberg, Germany.

Benefits for clinics, patients and health care providers

Fast but reliable testing to rule out AMI in patients with chest pain who present in hospitals reduces congestion in emergency departments (ED) and financial burden on health systems. EDs worldwide are increasingly challenged with overcrowding. Patients with suspected acute coronary syndrome are common, even though only few of these patients are ultimately diagnosed with AMI. As a result, rapid rule-out of AMI is a major benefit for hospitals and the public health system in general. Additionally, faster diagnosis can improve patient well-being by avoiding unnecessary patient stress, anxiety and other risks associated with hospitalization.

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References

- 1) 2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation: Task Force for the Management of Acute Coronary Syndromes in Patients Presenting without Persistent ST-Segment Elevation of the European Society of Cardiology (ESC). Roffi M, Patrono C, Collet JP, Mueller C, Valgimigli M, Andreotti F, Bax JJ, Borger MA, Brotons C, Chew DP, Gencer B, Hasenfuss G, Kjeldsen K, Lancellotti P, Landmesser U, Mehilli J, Mukherjee D, Storey RF, Windecker S. Eur Heart J. 2015 Aug 29. pii: ehv320.
- 2) A systematic review and collaborative meta-analysis to determine the incremental value of copeptin for rapid rule-out of acute myocardial infarction. Lipinski MJ, Escarcega RO, D'Ascenzo F, Magalhaes MA, Baker NC, Torguson R, Chen F, Epstein SE, Miro O, Llorens P, Giannitsis E, Lotze U, Lefebvre S, Sebbane M, Cristol JP, Chenevier-Gobeaux C, Meune C, Eggers KM, Charpentier S, Twerenbold R, Mueller C, Biondi-Zoccai G, Waksman R. Am J Cardiol 2014; 113:1581–1591.
- 3) Mockel M, Searle J, Hamm C, Slagman A, Blankenberg S, Huber K, Katus H, Liebetrau C, Muller C, Muller R, Peitsmeyer P, von Recum J, Tajsic M, Vollert JO, Giannitsis E. Early discharge using single cardiac troponin and copeptin testing in patients with suspected acute coronary syndrome (ACS): a randomized, controlled clinical process study. Eur Heart J 2015;36:369–376.
- 4) Maisel A, Mueller C, Neath SX, Christenson RH, Morgenthaler NG, McCord J, Nowak RM, Vilke G, Daniels LB, Hollander JE, Apple FS, Cannon C, Nagurney JT, Schreiber D, deFilippi C, Hogan C, Diercks DB, Stein JC, Headden G, Limkakeng AT Jr, Anand I, Wu AH, Papassotiriou J, Hartmann O, Ebmeyer S, Clopton P, Jaffe AS, Peacock WF. Copeptin helps in the early detection of patients with acute myocardial infarction: primary results of the CHOPINtrial (Copeptin Helps in the early detection of Patients with acute myocardial INfarction). J Am Coll Cardiol 2013;62:150–160.

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