



Title **Cardiac Markers in Coronary Disease and Heart Failure in Outpatient Medicine**

Agency **HAS, Haute Autorité de Santé**
2, Avenue du Stade de France, F 93218 La Plaine CEDEX;
Tél : +33(0) 1 55 93 71 12, Fax : +33(0) 1 55 93 74 35;
contact.seap@has-sante.fr, www.has-sante.fr

Aim

To clarify the indications and nonindications of cardiac markers in managing coronary disease and heart failure in outpatient medicine.

Conclusions and results

Based on critical analysis of the literature and the reasoned position of the working group, the indications and nonindications of cardiac-marker determination are as follows:

- Determination of myocardial necrosis markers is not indicated in the management of suspected acute coronary syndrome (ACS) in outpatient medicine, such management being based principally on a call to SAMU (French emergency medical service) center 15. The only exception is cases where an asymptomatic patient seeks medical advice for chest pain that occurred >72 h previously, which is suspected of having been an uncomplicated ACS, and where the ECG results are not helpful. In this case, the assessment undertaken can include determination of the blood levels of a troponin. Determination of the other markers of myocardial necrosis (ASAT, LDH, total CPK, myoglobin, and CK-MB) is not indicated.
- Determination of troponin is not indicated in managing chronic heart failure (CHF).
- Determination of natriuretic peptides is indicated in the initial diagnosis of CHF when the symptoms are atypical. Concentrations below 100 ng/l for BNP and below 300 ng/l for NT-proBNP make this diagnosis unlikely.
- Determination of natriuretic peptides for the sole purpose of establishing a prognosis is not indicated in CHF.
- Routine detection of left-ventricular dysfunction through determination of natriuretic peptides in asymptomatic populations with or without a risk factor for HF is not indicated.

- In patients with stable CHF on optimal treatment, repeated determination of natriuretic peptides in the context of therapeutic monitoring is not indicated. In cases of a clinical suspicion of decompensation of CHF, determination of natriuretic peptides can help guide the diagnostic and therapeutic approach. In the presence of a typical clinical picture of decompensation, determination of natriuretic peptides is not indicated.
- It is necessary to properly distinguish BNP from NT-proBNP and, in the case of the monitoring of a given patient, to always order measurement of the same natriuretic peptide, determined in the same laboratory.
- Determination of natriuretic peptides is not indicated in prognosis of stable chronic coronary disease.
- Determination of HS CRP is not indicated in primary prevention of coronary disease.

Methods

The assessment of using cardiac-marker determinations was based on critical analysis of the literature; literature selection was limited to summary documents (recommendations, HTAs, systematic reviews, and meta analyses) published between January 2005 and May 2010 (EMBASE, MEDLINE, Pascal, and search of specialist websites). Fifty-three articles were analyzed. A multidisciplinary working group consisting of 13 experts discussed this analysis. The report was examined by the Commission d'évaluation des actes professionnels (Committee for the Assessment of Professional Procedures) and then validated by the HAS Board.