
Date: April 22, 2019
To: fDTH Central Zone Physicians, Nursing Managers, Nursing Educators, Nurse Practitioners, Clinical Nurse Specialists, Laboratory Directors, Managers, Supervisors
From: Alberta Public Laboratories (APL)
Re: Discontinuation of Creatine Kinase-MB (CK-MB) testing in Central Zone

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message:

Effective April 22nd 2019, CK-MB testing in Red Deer Regional Hospital Laboratory will be discontinued.

Why this is important:

Cardiac troponin (cTn) is more sensitive for myocardial injury as lower level of tissue damage is needed for its detection compared to CK-MB. Troponin is also more specific marker owing to its exclusive presence in cardiac myocytes (CK-MB, may be elevated with skeletal muscle damage).

According to 2012 Universal Definition of acute myocardial infarction (AMI) cTn was deemed the preferred biomarker for the diagnosis of AMI. Additionally, the 2014 AHA/ACC guidelines concluded that CK-MB is not useful for the diagnosis of ACS (Class III, Level of Evidence: A).

References:

- Thygesen K, Alpert JS, Jaffe AS, et al; Joint ESC/ACCF/AHA/WHF Task Force for the Universal Definition of Myocardial Infarction. Third universal definition of myocardial infarction. *Circulation*. 2012; 126(16):2020-2035.
- Anderson JL, Adams CD, Antman EM, et al. 2012 ACCF/AHA focused update incorporated into the ACCF/AHA 2007 guidelines for the management of patients with unstable angina/non-ST-elevation MI. *J Am Coll Cardiol*. 2013; 61:e179-e347.
- Amsterdam EA, Wenger NK, Brindis RG, et al. 2014 AHA/ACC Guideline for the Management of Patients with Non-ST-Elevation Acute Coronary Syndromes: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol*. 2014; 64:e139-228.
- O’Gara PT, Kushner FG, Ascheim DD, et al. 2013 ACCF/AHA guideline for the management of ST elevation MI. *J. Am Coll Cardiol*. 2013; 61:e78-e140.

Action Required:

Consider ordering cardiac troponin instead of CK-MB

Inquiries and feedback may be directed to:

Dr. Yury Butorin, Clinical Biochemist, Red Deer Regional Hospital, Alberta Public Laboratories

This bulletin has been reviewed and approved by:

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