Author’s response to reviews

Title: Prediction of Adverse Cardiac Events in Emergency Department Patients with Chest Pain Using Intelligent Variable Selection and Heart Rate Variability

Authors:

Nan Liu (liu.nan@sgh.com.sg)
Zhi Xiong Koh (koh.zhi.xiong@sgh.com.sg)
Junyang Goh (kengoh83@gmail.com)
Zhiping Lin (ezplin@ntu.edu.sg)
Benjamin Haaland (benjamin.haaland@duke-nus.edu.sg)
Boon Ping Ting (tingbp@gmail.com)
Marcus Eng Hock Ong (marcus.ong.e.h@sgh.com.sg)

Version: 2
Date: 10 July 2014

Author’s response to reviews: see over
9 July 2014

Dear Editor,

BMC Medical Informatics and Decision Making

Research Article:

Prediction of Adverse Cardiac Events in Emergency Department Patients with Chest Pain Using Intelligent Variable Selection and Heart Rate Variability

A key aim of triage in chest pain patients is to identify those with high risk of acute cardiac events as they require intensive monitoring and early intervention. Our previous works have shown that heart rate variability (HRV) and vital signs are potential risk predictors. The current study aims to discover the most relevant variables using vital signs and HRV measurements for risk prediction of acute cardiac events. We propose to select significant predictors with a novel intelligent variable selection algorithm so that an accurate yet fast triage can be expected.

This is an observational cohort study which enrolled patients with a primary complaint of chest pain and triaged to the top priority level at the ED.

We hereby give consent for publication and declare that this material has not been published or submitted elsewhere for publication. The authors declare there are no conflicts of interest. Ethics approval from the Institutional Review Board (IRB) with a waiver of patient consent for the study was obtained. All authors have read and approved the manuscript. A/Prof Ong had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the analysis.

Thank you.

Corresponding Author:
A/Prof Marcus Eng Hock Ong
Department of Emergency Medicine
Singapore General Hospital
Outram Road, Singapore 169608
Tel: (65) 6321 3590
Fax: (65) 6321 4873
E-mail: marcus.ong.e.h@sgh.com.sg