



SDI Review Form 1.6

Journal Name:	<u>Cardiology and Angiology: An International Journal</u>
Manuscript Number:	2015_CA_17792
Title of the Manuscript:	Learning Bayesian Networks using Heart Failure Data
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	The strength of given relationship between a cause (HIV, hypertension, diabetes, etc) and death is expressed by the conditional probability (CPT). Therefore, you should provide these parameters (CPT) associated the resulted figure 1. These parameters representing strengths of relationships support your explanations very much in section 3. You can recognize which cause is serious.	Very nice comment we tried it. We thank the reviewer in advance!
<u>Minor</u> REVISION comments	Please review directions of excluded edges in ban list. There is no edge from "death" node to other nodes but it seems that you specify inversed directions. If so, the R algorithm ignores the ban list.	The death node is a leaf node that is death can only receive arcs. Death status of a patient cannot affect variables used in this study but can be affected by them naturally. So we are absolutely reasonable in making death a leaf node.
<u>Optional/General</u> comments	The main contribution of the article is to make the conclusion of causes of heart failure by learning Bayesian networks. Note that this conclusion (explanation) is the most important. Age is known as main cause of cardiology but it is independent from all other nodes in this research. I think that is has indirect influence on heart failure and your data does not reveal relationships between age and other causes (HIV, hypertension, diabetes, etc) because your data focuses on deaths. Moreover some diseases such as HIV and anemia are not dependent on age. There are two suggestions 1. You add more heart failure causes. 2. You build up another separated network that	Very nice comment we accepted and modified almost all.



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	includes age and other causes of heart failure (HIV, hypertension, diabetes, etc) but excludes heart failure in order to discover relationships between age and other causes (HIV, hypertension, diabetes, etc). After that you compare this network with the network specified in the article (figure 1) in order to get more explanations.	
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