

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Hepatology

**Manuscript NO:** 41353

**Title:** Impact of sepsis and non-communicable diseases on prognostic models to predict the outcome of hospitalized chronic liver disease patients

**Reviewer's code:** 00000663

**Reviewer's country:** Italy

**Science editor:** Ruo-Yu Ma

**Date sent for review:** 2018-08-06

**Date reviewed:** 2018-08-10

**Review time:** 4 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The study addresses the relevant issue of factors associated with outcome in patients with chronic liver disease. Several variables were retrospectively identified in a large database, including all patients with cirrhosis admitted to hospital for "decompensation".



Sepsis and acute kidney failure were identified as the most relevant acute factors. Adding these variables to MELD increased prediction of mortality (sepsis) and morbidity (CKD). The predictive value of NCDs was low, and only CKD remained in the analysis of morbidity Problems 1. As in any association study, the predictive value of factors depends on the case mix and the selected items. In this case, it is mandatory to clarify the nature of the “decompensation” term. As an example, it is very difficult to imagine that GI bleeding was neither associated with morbidity nor with mortality. How many cases of GI bleeding were in the system? Was GI bleeding included as putative variable, or only hemoglobin at admission was considered? This might explain why GI Bleeding was not a relevant factor. 2. In this case, the authors should explain why they included AKI defined by a formula which is reasonable, but might be changed, and did not consider a very important morbidity as GI bleeding as a whole. 3. The finding that NCDs were not associated with mortality is not surprising. In the short-term – and 6 weeks are definitely a short term in the case of a chronic disease – no surprise that diabetes, hypertension (a rare event in cirrhosis), COPD did not affect mortality. Indeed, the only one which was more or less significant was NSTEMI. 4. Also the definition of morbidity as prolonged hospital stay (>5 days) or readmission within 7 days may be criticized. It depends largely by the operational characteristics of the Pakistani health system, and cannot be extrapolated to other Countries.

## INITIAL REVIEW OF THE MANUSCRIPT

### *Google Search:*

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No





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**Name of journal:** World Journal of Hepatology

**Manuscript NO:** 41353

**Title:** Impact of sepsis and non-communicable diseases on prognostic models to predict the outcome of hospitalized chronic liver disease patients

**Reviewer's code:** 02546652

**Reviewer's country:** Italy

**Science editor:** Ruo-Yu Ma

**Date sent for review:** 2018-08-06

**Date reviewed:** 2018-08-13

**Review time:** 7 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
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			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The paper is interesting but needs some revision 1. Abstract: please provide the full terminology for the acronym MELD 2. Methods: probably there other comorbidities registered in the study but not cited in point D (variables analyzed) included in the



Charlson index (e.g. peripheral arterial disease, etc.). Was the Charlson index modified to account for all subjects being affected by severe CLD? 3. Primary outcome: mortality and repeated admission represent competing risks; author could consider to include a combined outcome of mortality/morbidity 4. Results: authors state that the presence of NCDs was related to STEMI; was some specific NCD associated to the presence of sepsis (possibly diabetes, etc.) or to the risk of AKI (e.g. chronic renal disease)? 5. Figure 1: risk factors for mortality are represented hierarchically: is there a rationale for this choice? 6. Table 1: in the etiology of CLD, is “Non-B, Non-C” standing for unknown etiology? 7. Table 4: please provide in column headings number of subjects (NCDs Yes / NCDs No). Is the p-value obtained by the Fisher exact test (due to low numbers for NSTEMI)?

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