Reviewer's report

**Title:** Cognitive Deficits are Associated with Poorer Simulated Driving in Older Adults with Heart Failure

**Version:** 1  **Date:** 30 March 2013

**Reviewer:** Linda Lam

**Reviewer's report:**

This paper examines the association between cognitive performance and simulated driving skills in older adults with heart failure.

**Major compulsory revisions** -

It is expected that global cognitive impairment would be associated with poor driving skills. The authors need to highlight what specific information will be obtained from studying patients with heart failure. How will the results be different if another group of older adults with or without chronic medical diseases are examined?

It is also important to address the comparison group with healthy adult controls. The impairment of driving skills in the subject group may reflect an age effects, but not specific to heart failure (Table 2).

**Minor essential revisions**

Association between specific cognitive domains and driving skills are interesting factors to explore.

The findings suggested that 5.6% had impairments in attention/executive function, 11.1% had memory deficits and 16.7% had motor function impairment. One interesting finding is that memory is not particularly related to driving test skills, compared to attention/executive function. Apart from the discussion point raised, it is helpful to further discuss the specific associations in relation to characteristics of older adults with heart failure.

**Discretionary revisions**

Table 2 showed the comparison between healthy young adults and participants. The findings reflected more likely an aging effect than anything for heart failure patients. May consider reporting only in the text.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

No competing interests