Reviewer's report

**Title:** Neutrophil Gelatinase-Associated Lipocalin (NGAL) predicts Renal Injury in Acute Decompensated Cardiac Failure: A prospective observational cohort study

**Version:** 1  **Date:** 10 November 2011

**Reviewer:** Jean-Michel Constantin

**Reviewer's report:**

In this prospective observational study, Macdonald have investigated if NGAL measured at presentation predicts in-hospital acute kidney injury in Acute Decompensated Cardiac Failure. The question raised is of interest but we have serious concerns with this manuscript.

First of all, predictive positive and negative values presented are inferior to data shown in peri-operative cardiac patients or ICU patients. This is not a concern for us, and we think it must be discussed. But before discussing, you probably have to define better what you think AKI is. You used RIFLE, but without urine output, please justify. When did your patients developed AKI, at day 1, day 2 day …5 ?

If patients developed AKI due to an injection of intravenous contrast at day 4, it is comprehensible that NGAL at admission was normal. NGAL is a biomarker of AKI, validated in different situations, but NGAL do not increase in case of pre-renal azotemia. What is the amount of pre-renal azotemia in your patients, how did you splitted AKI and pre-renal azotemia? One other possibility to explain your results is the amount of chronic kidney disease in this old population. Please show us some data.

Method and result section are difficult to understand, please rephrase.

NGAL is an ubiquitary peptide, please change the sentence “Neutrophil gelatinase-associate lipocalin (NGAL), produced by renal tubular cells… » in the abstract, the body of the manuscript …

You said that NGAL is a biomarker released by renal tubular cells in response to injury, has been shown to be an early marker of acute kidney injury (AKI) in a number of settings.[5-8 of yours references]. Please cite only original papers, try to cite papers with plasma NGAL and adults patients, it will be more accurate according to your population than urinary and paediatric NGAL.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**
I received grants from Alare to be the coordinator of a study.