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Authors' Reply to Letter to the Editor re: Cognitive Impairment in Older Adults with Heart Failure: Prevalence, Documentation, and Impact on Outcomes

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We agree with the Drs. Dinisio and Porreca that cognitive impairment may fluctuate during hospitalization and possibly improve with therapy for acute decompensated heart failure. If our study had involved discrete measurements at two separate time points (e.g. nurse assessment on admission, and physician assessment on discharge) then their concern that “only cases remaining significantly impaired at discharge were documented” may have been valid. However, as stated in our manuscript, cognitive assessments done by the study nurse were completed after the first hospital day. Furthermore, the discharge summary encompasses events that occur during the entire hospitalization, including condition on admission; for instance, if a patient presents with chest pain on admission but it is not present at discharge, it is normally still reported in the discharge summary. We therefore believe that our finding represents a true discordance between the rates of cognitive impairment documented by physicians and cognitive impairment present during hospitalization among our study population.

We determined *a priori* that our multivariable analysis would adjust for covariates that differed significantly between patients with and without cognitive impairment. While the incorporation of additional covariates may be interesting, we believe that given the low absolute number of hospitalization events in each group, additional adjustment may have led to potential model over-fitting. Regarding effect estimates for other covariates, we feel that including these would be more appropriate in a study designed to identify all potential risk factors for hospital readmission and mortality among older adults hospitalized for heart failure, rather than a study such as our own that focused on the unique association of cognitive impairment with this outcome.

As highlighted by Drs. Dinisio and Porreca, we did not report data on the presence of atrial fibrillation as this variable was not available in our dataset. We agree that this is an

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important condition given emerging evidence about its association with cognitive impairment, and we hope that future studies can build on our own work by incorporating it.

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