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**Article Title:** Association between goals of care designation orders and healthcare resource use among seriously ill older adults in acute care: a multicentre prospective cohort study

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**REVIEWER 1 COMMENTS and author response in bold**
Mary Scott, Elisabeth Bruyere Research Institute

Did you capture Do Not Hospitalize (DNH) orders? These are often provided when patients are discharged to a Long-Term Care facility or a hospice and would be a mediator in the pathway for 30-day readmission.

**We did not capture Do Not Hospitalize (DNH) orders. DNH may modify the effect of GCD on readmission (however, if DNH is a mediator in the causal pathways between GCD type and readmission, it may be redundant to include in the model). In the present study, few patients were discharged to long-term care (n=32) or hospice (n=17), which limited the analyses we could do (e.g. deemed insufficient to run stratified analyses on these discharge locations).**

It would be useful to inspect patients who changed status during their hospitalization as it appears there is a significant amount of patients changing status during hospitalization (15 patients changed to GCD - C). This could have impacted resource use and discharge location.

**We completely agree this could impact resource use. To address this to the best of our ability, we inspected all patients, and determined the proportion of the index admission for which the GCD type at enrolment was applicable. It ranged from 88-98% depending on the GCD type (88% average for C, 98% average for R). This is now reported in the manuscript. Modelling multiple GCD types per patient for the resource use outcomes (for example, by segmenting the index admission, or including an indicator [dummy] variable for patients that changed GCD type), was beyond the scope of this analysis. DAD data was provided as a summary per admission, with no dates to support segmenting by date of GCD change.**

Could you look at whether the PC referral resulted in a change to GCD? There is literature suggesting that PC consults are helpful for patients and families in shared decision-making and satisfactory goals of care discussions. This study provides a great opportunity to look at this intervention in relation to outcomes and if there is a relationship, PC could be a confounder in the model looking at discharge location.

**Unfortunately, we only collected data on *if* PC referral occurred during the index admission, not *when*.**

RIW is a measure that is not well explained in this paper - I would suggest a more detailed explanation with the calculation used - it was not clear on the link referenced. It could be provided as an appendix.

**This has been clarified in the Methods.**

As you outlined in the interpretation, there is a difference in frailty and comorbidities between participants with R-M-C designations. I would suggest making these underlying differences clear from the beginning. Potentially a table or figure looking at the survival time of the patients by GCD type to show the significant differences in LOS being driven by other factors such as disease/symptom severity.

**To Table 1, under "Patient characteristics", we have added the count (%) that died during the index admission: 20% of C's, 9% of M's, 3 % of R's.**

M and C designations mean that patients will not enter ICU, therefore this outcome is somewhat confusing to me. Are you intending to look at inappropriate ICU admissions (e.g. whether those with M and C would get admitted even with an order that prevents them from being admitted)?

**Discordant care occurs often (discordance in preferred care and received care). This has been observed by us, as well as others [ref 11], particularly in regard to ICU admission. We wanted to ensure we tracked and reported on this, as when is happens, it clearly demonstrates GCD type was not followed. As it turns out, very few patients in our cohort were admitted to the ICU, even among those with an R-GCD.**

How did you adjust 30-day readmission models for discharge location as needed?

**This has been clarified in the Methods.**

The conclusion could be improved through describing some of the key differences between GCD types (e.g. Discharge location associated with GCD type, PC referral found higher in M and C, etc.) and by outlining the next steps in research (i.e. retrospective look at all those who were admitted and proportion receiving GCD that is appropriate, how many change status, disease types and GCD, etc.).

**The conclusion has been updated based on these and other reviewer's suggestions.**

**REVIEWER 2**
Jeffrey Bakal, University of Alberta, Canadian VIGOUR Centre

This is a well presented and reported study. No Concnerns