Reviewer's report

Title: Multi-step, repeated contact methods, but not personalized contact strategies, improved time to survey completion: evaluation of two sequential randomized trials

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Reviewer: Matthew Baldwin

Reviewer's report:

This article by an experienced and leading group of clinical investigators describes two related RCTs that show (1) that multiple mailings and then telephone messages are required to achieve long-term follow-up for survivors of critical illness, and that (2) personalized versus generic approaches to mailings and phone calls make no difference. This investigation importantly adds to the literature because there is significant interest among critical care investigators worldwide about long-term outcomes after critical illness, and knowing how an established group of investigators who oversee a large, multi-center NIH-funded study follows-up participants is important to know such that methods for future long-term critical care outcomes studies and trials can be standardized and optimized.

There are several major strengths to this article: (1) the multi-center RCT design with a large number of participants; (2) a well described protocol for contacting participants; (3) and, a well-described and appropriate statistical analyses to examine patient factors associated with more difficult follow-up.

There are some minor weaknesses: (1) The title is cumbersome and was difficult to understand until after I read the abstract and methods; (2) On a first read, the abstract is confusing and could be written more clearly; (3) the Background is confusing because the authors begin with discussing recruitment and participation rates, but this study is about achieving adequate follow-up in critical illness survivors; and, (4) the authors only achieve 67% follow-up and note in the discussion that novel contact methods for maximizing survey completion rates in younger and minority patients are needed without making any suggestions. Use of cellular versus land-line phones, text messages, emails, and obtaining surrogate information in case the participant cannot be contacted directly are important suggestions to be included. More detailed suggestions are described below:

Major Compulsory Revisions:

ABSTRACT:

1. Background: Confusing first sentence discusses participant identification and recruitment for what is a study that focuses on follow-up of ICU survivors. I do not intend to rewrite your abstract, but maybe something like: 'Effective and complete
long-term follow-up of survivors of critical illness is fundamental to understanding the true value of intensive care, but is difficult because many ICU survivors have substantial and long-lasting debilitation that may limit their participation.

2. Methods: I found ‘At a median of 34 months since completing a follow-up study’ to be a confusing introductory phrase. Was this an entirely new study? Or, was it additional follow-up for an existing study? Maybe something like: ‘ALI survivors enrolled in a long-term outcomes study were contacted a median 34 months since completing their last-follow-up visit.’ The phrase ‘sequential mail and telephone based contact strategies’ was also confusing on first read. Only after reading the methods did I realize that mail nonrespondants were eligible for the telephone intervention. Again, I don’t intended to rewrite your abstract, but maybe something like: ‘We performed 2 RCTs testing personalized vs. generic approaches first to repeated mailings, and then to repeated telephone calls among those who did not respond to mailings. We measured the effect of these personalized vs. generic contact strategies as well as participant characteristics on time to survey completion.’

3. Results: ‘Of 308 participants, 67% responded (49% and 51% in mail and telephone trials). I could not comprehend this math without reading the body of the manuscript. On first read, I asked how 49% and 51% participation resulted in a total of 67% follow-up. Please revise.

BACKGROUND:
Major Compulsory Revisions:
4. First paragraph: Confusing introduction focused on identification and recruitment of participants, when in fact this is a study focused on optimizing follow-up of patients who are already enrolled in study and who may be debilitated and therefore difficult to achieve follow-up with. Please revise so that the introduction fits the study.

RESULTS:
Overall, well written.
Major Compulsory Revisions:
5. Please state whether surrogates needed to be contacted in any instances because the participant was too debilitated to respond to mail or answer the phone him/herself.

DISCUSSION:
Major Compulsory Revisions:
6. Can the authors address these additional issues in the discussion perhaps in a future directions paragraph?
A. Obtaining surrogate information to facilitate follow-up for critical illness survivors who are too debilitated to respond to mail or phone calls. In my own research group’s experience, obtaining the cellphone number and email of a younger generation surrogate is particularly important for follow-up with older ICU
survivors are debilitated and who sometimes have spouses (who are primary surrogates) who are very debilitated themselves.

B. Use of email, text messages, and mobile versus landline phones, or all of the above to maximize follow-up in future studies

C. How the efforts in this study meet or miss suggestions made by Tansey, Needham, and Herridge in their 2007 Intensive Care Medicine paper on following-up ICU survivors.

Discretionary Revisions:

ABSTRACT:

7. Results: The authors report that older white participants are the fastest to complete the surveys, which is true. But, readers who are investigators undertaking their own long-term outcomes studies really want to know who is not going to follow-up. The authors could consider reporting that younger minorities have the longest time to survey completion because this is really what is of interest.

BACKGROUND

Discretionary Revisions:

8. Second paragraph: “We aimed to evaluate… survey completion in a population and US study setting. similar to Chen et al”. This is confusing introduction to your study. Just state clearly what you did and whom you did it to: We evaluated survey completion among long-term survivors of ALI enrolled in US ARDSnet studies. Then describe how this work differs from Chen et al.

9. Third paragraph:
   -Please clarify that the telephone calls were to mail non-respondents.
   -“Based on results of prior research… non significant trend observed” A trend of what?

METHODS:

Discretionary Revisions:

10. Study Population, First Paragraph: “A total of 332 ALTOS… randomized to mail and then telephone based strategies” is again confusing. Can you clearly and concisely state that those who received the telephone intervention were mail nonrespondents?

11. Statistical Analysis, First Paragraph: Overall well-written. However, when reading the results section I had to go back and carefully reread 2.3 and 2.4 to confirm that all 18 covariables were included in the multivariable model. Consider rewording the last sentence of the first paragraph in this section to clearly state that your sample size and number of observed outcomes supported this full multivariable model. Maybe something like: ‘Since we had 183 participants complete the survey and 18 predictors, we were able to include all these covariables into our multivariable model without overfitting (i.e. the ratio of
respondents to predictors was > 10).’

RESULTS
Discretionary revisions:
12. Could the authors report how many were contacted by cellular phone versus landline? And, whether there were failed attempts more often with one type of phone than the other?

13. Can you put the log rank p-values into the survival curve figures that make up Figure 2? It makes it easier to immediately realize the statistically significant difference, rather than reading through the legend.

14. Section 3.4: As I mentioned for the abstract, I wonder whether it is more informative to report predictors of longer time to survey completion, rather than shorter. We really want to know who is not going to follow-up.

DISCUSSION:
15. Third paragraph: “Alternatively, expanded use of mobile phone among younger adults may make them more accessible by telephone compared to mail, thus, the slower time to survey completion… may be a result of initial attempt being made by mail.” What are you trying to say here? Young people have cell phones, so they ignore their mail? Please clarify or revise.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests