Reviewer’s report

Title: How can we improve targeting of frail elderly patients to a Geriatric Day-Hospital Rehabilitation Program?

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Reviewer: Arnold Mitnitski

Reviewer’s report:

The authors study the factors which could be related to rehabilitation outcomes in Geriatric Day Hospital (GDH). Significant improvement was reported in 58% of patients. The major finding is that some tests on admission were found to be significantly associated with rehabilitation success. The authors conclude that further research will be done to use 'a composite 'rehab appropriateness index' for targeting frail elderly to GDH rehabilitation services'.

The authors emphasize the need for a prospective study to develop tools to better target patients who will benefit from rehabilitation. I agree with that statement and would like to add that a composite rehabilitation index could be created even using the data presented here. One option in creating such index is to use a multivariate logistic regression although I would anticipate that many of the measures will not be statistically significant under the background of 6MWT – that can be easily checked. The other option could be just counting (after an appropriate transformation) ALL 9 measures each of which might contribute to the composite score even if some of these items are not statistically significant. I would like the authors to comment on that. Of course, prospective validation of such index would be important when the data are available.

Arnold Mitnitski

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'