Reviewer's report

Title: Assessing performance status in palliative care: a version of the Karnofsky Performance Status scale for the twenty-first century

Version: 1 Date: 3 July 2005

Reviewer: Lukas Radbruch

Reviewer's report:

General
The authors present data from a substudy of a randomized controlled trial comparing interventions in palliative care. In the substudy performance status was measured using the original Karnofsky Performance Status scale, the Thorne-modified KPS and the newly developed Australian-modified KPS. The authors report high agreement between the three scales and significant correlation of all three scales with survival, though the AKPS was most predictive of survival at the lower range of the scale. Nurses reported that they preferred the AKPS.

The assessment of performance status is important for clinical practice in palliative care, as it allows identification of patients needing a lot of resources. It is even more important in palliative care research, as performance status allows categorisation of the patient groups.

-------------------------------------------------------------------------------------

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

However, I find it difficult to understand the rationale for an elaborate evaluation of a modified scale that is completely identical to the original version in 7 of the 11 categories. Even with the TKPS there is no difference in the categories of 70% or more. Considering that only a few of the categories have been changed, the high level of agreement is not astonishing. Considering that all three scale have identical phrasing for the upper four categories, it is even less astonishing that Strongest agreement occurred at the highest levels (70-90), as stated in the abstract. I would have expected an agreement of 100% for these categories.

The differences in the assessment with identical categories is even more clear in figure 2b, where assessments with an AKPS-score of 50 are linked to KPS-scores of 20 to 70, though the KPS-category of 50 would have had the same phrasing, and the scales should have been assessed simultaneously, as stated in the methods section.

Most assessments are in the upper range, showing that only a minority of patients were bedridden. The evaluation might have been biased by this, and evaluation on a palliative care unit with more severely disabled patients might show other results. The missing correlation of KPS and TKPS with survival in the lower range of the scale may have been biased by small patient numbers in these clusters.

The main advantage of the AKPS seems to be the preference of that scale by the nurses doing the assessment. However, only very few details on nurse preferences are provided.

-------------------------------------------------------------------------------------

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Reading the paper I became confused how many patients were included. In the abstract (p. 3) assessment of 275 patients are mentioned. In the results section assessments from 306 patients are recorded. In the methods section the authors state that assessment of the first 120 patients was planned a priori (p. 7), later on in the methods section data collection from the first 200 patients is mentioned (p.9). If the sample sized was much larger than originally planned, what were the
reasons? Did the authors increase the study size because the initial assessments did not show significant differences?

I wondered why the authors did not choose a more divergent scale such as the ECOG scale. They state in the discussion that ECOG performance score is rarely used in the palliative care setting as differentiation of patients with poor functional status is inadequate. As most assessments in their trial was in the upper performance scale, this would not have been a problem. ECOG performance status has been used in palliative care settings in several palliative care trials [1-3]. In contrast the higher number of categories of the KPS has been clustered into three main categories (A,B and C), as detailed categorisation had no impact on the correlation with survival.

The manuscript should be shortened considerably. Tables 3 and 4 as well as figures 2 and 3 should be deleted.


Discretionary Revisions (which the author can choose to ignore)

Minor points:
- page 10: actuarial survival
- page 13: Phases of palliative is predictive.
- page 13: Nurses preferred the AKPS, but this seems to be related to burden more than to face validity.
- page 12: Spearman correlation coefficients below 0.3 between performance scales and survival show that correlation between these items are not relevant for clinical practice.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests