Can Performance Status (PS) be Determined Accurately by Patients? Results of a Prospective Trial Evaluating ECOG and Karnofsky PS as well as Patient-Rated PS

Abstract #1447

Background: PS is accepted as a key factor in comparing arms of clinical trials, in patient monitoring, and in determining treatment eligibility. While both the ECOG and KPS scales have validity and wide acceptance, accuracy depends on a clear understanding of the scale definitions. Since both are observer-rated, they are prone to rater or investigator bias. Additionally, patient-rated scoring techniques are gaining in popularity as patient input and self-reported outcomes.

Methods: We prospectively evaluated both PS scores, and a Patient-Rated PS (vs. visual analog scale [VAS] of activity) in patients with NSCLC. Registrars using the ECOG and KPS had written definitions of each scale category. The Patient-Rated PS is part of the validated CA scale, the KPS. Patients completed the VAS on paper and an on-computerized electronic handheld device (LCSS-QL). All patients were part of the Quality of Life-COMET study, and were enrolled at 6 sites in Ontario. Eligibility, advanced and ECOG, KPS > 70, no prior chemotherapy, receiving initial courses of treatment = patient. Patients completed 2 scales immediately prior to chemotherapy.

Results: The PS of the patients entered had the following characteristics: 41% men; median age: 60 (range 44–81); stage IV: 72%; KPS median: 60 (range 60–100); ECOG median: 1. Using the electronic format, there was moderately high correlation between the Patient-Rated PS and ECOG PS (Pearson = 0.84) and by ECOG (Pearson = 0.83). A similar result (Pearson = 0.86) was obtained between the electronic and paper format for the VAS scales.

Conclusions: These results indicate that patients can rate their own performance status equally and easily with a VAS question. There is moderately high correlation between Patient-Rated PS and that collected by observers. Future prospective trials should evaluate whether the Patient-Rated PS more accurately predicts survival and response than the ECOG or KPS scales.

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Study Objectives

- To evaluate if a patient determined performance status, using a visual analog scale, could be performed equally as well as that performed by registrars receiving prior scale training.
- To test if the patient determined performance status VAS score would correlate with:
  - An observer-rated KPS score
  - An observer-rated ECOG score
- To determine if the patient-rated VAS scores would correlate well if measured by using the LCSS scales on either the paper or electronic version LCSS-QL.

Results

Patient-Rated VAS Performance Status (VAS)

- Patients complete the LCSS both paper and electronic formats.  
  - Original paper version (3-CIS): Patients complete forms on a 150 mm visual analog scale (VAS) score.
  - Electronic version (LCSS-QL): Patients rate PS using one VAS question: Average symptom burden index (VAS) = mean of 9 symptoms.
- Electronic forms: The LA are entered into the online LCSS-QL.
- The LA is given to the patient, and the observer captures the VAS score.
- A new computerized version (LCSS-QL): 
  - Observer: Fills out the VAS score on the LCSS-QL.
  - Observer: Categorizes the 50% of patients that rate their PS at 2 or less.
- The observer-rated KPS score and the patient-rated VAS score would correlate well.
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Conclusions

- These results demonstrate that patients can rate their own performance status rapidly and easily with one VAS question. There is excellent acceptance among patients of this simple method.
- The KPS and VAS scales indicate that fairly similar information can be obtained with the use of any of these methods.
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