Single- vs. Multiple-Item Instruments in the Assessment of Quality of Life in Patients with Advanced Cancer
Shirley H. Bush, MBBS, Henrique A. Parsons, MD, J. Lynn Palmer, PhD, Zhijun Li, MSc, Ray Chacko, BBA, and Eduardo Bruera, MD
JPSM 2010; 39(3): 564-571

Prepared by: Cheryl Nekolaichuk, PhD, R. Psych.
Reviewed: Tertiary Palliative Care Unit 43, Grey Nuns Community Hospital
March 24, 2010

Abstract
Although multidimensional instruments are usually used to measure quality of life in advanced cancer patients, recent research suggests that single-item assessments can provide a reliable measure. Using the Functional Assessment of Cancer Therapy-General (FACT-G) instrument as a gold standard, we assessed the performance of the Edmonton Symptom Assessment System “feeling of well-being” (ESAS WB) item. We reviewed the data from 213 patients enrolled in six clinical trials. We determined the association between baseline ESASWB and FACT-G total and subscale domain scores (Physical Well-being [PWB], Social/Family Well-being [SWB], Emotional Well-being [EWB], and Functional Well-being [FWB]). We also calculated the association between baseline (T1) and second (T2) observations of ESAS WB and of FACT-G total score. In addition, we predicted the change in FACT-G predicted by the ESAS WB score using regression analysis. Mean age was 60 (SD 12) years and 48% were female. The Spearman correlation coefficient of ESAS WB and FACT-G was _0.48 (P < 0.0001). Correlations with FACT-G subscale domains were also highly significant, except for the SWB domain (P ¼ 0.08). The Pearson correlation coefficient for T1eT2 in ESAS WB and FACT-G for 146 patients was _0.36 (P < 0.0001). The change in ESAS WB corresponding to FACT-G published minimally important difference was _0.24 for 3, _1.55 for 5, and _2.87 for 7, respectively. These results suggest that the single-item measure ESASWB best reflects the total score on the FACT-G and PWB, EWB, and FWB domains but not on the SWB domain.

Strengths
- Reasonable sample size (T1, n=213; T2 n=146)
- Interesting questions for further ESAS research, including option of adding a “social domain item,” impact of changing the position of the well-being scale toward the beginning and clarification of patients’ interpretation of “feeling of well-being.”

Weaknesses
- Retrospective study
- Selected sample, pooling data from 6 different clinical trials: three most common symptoms (ESAS) were fatigue, appetite and pain; depression and anxiety were not as common (median scores, T1 = 2)
- May not be generalizable to other advanced cancer patients
- Different time periods for study endpoints (T2) – i.e. Day 7, Day 15 & Day 29
- Correlations were statistically significant but modest (≤ -.48). May not be clinically relevant.
- FACT-G: does not assess the spiritual dimension of quality of life; assesses items over past 7 days vs. the ESAS which assesses symptoms now (though this was not explicitly stated in the paper)

Relevance to Palliative Care
The use of a brief quality of life measure that could be administered on repeated occasions would be very helpful for assessing the dynamic nature of quality of life with minimal patient burden in this vulnerable population.