Original Article

Differences in Performance Status Assessment Among Palliative Care Specialists, Nurses, and Medical Oncologists

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Abstract

Context. The Eastern Cooperative Oncology Group performance status (ECOG PS) is one of the most commonly used assessments in oncology and palliative care (PC). However, the interobserver differences between medical oncologists and PC specialists have never been reported.

Objectives. To determine the interobserver differences in ECOG PS assessment among PC specialists, PC nurses, and medical oncologists in patients with advanced cancer.

Methods. We retrospectively reviewed the medical records of all patients who had an outpatient PC consultation in 2013 and identified 278 eligible patients. We retrieved the ECOG PS scores and symptom burden assessed by the Edmonton Symptom Assessment System (ESAS).

Results. PC specialists (median +0.5, $P < 0.0001$) and nurses (median +1.0, $P < 0.0001$) rated the ECOG PS significantly higher than medical oncologists. The weighted kappa values were 0.26 between PC specialists and medical oncologists and 0.61 between PC specialists and nurses. PC specialists' assessments correlated with ESAS fatigue, dyspnea, anorexia, feeling of well-being, and symptom distress score. The ECOG PS assessments by all three groups were significantly associated with survival ($P < 0.001$). However, patients with ECOG PS 2 and 3–4 rated by their medical oncologists had similar survival ($P = 0.67$). Predictors of discordance in ECOG PS assessments between PC specialists and medical oncologists were the presence of a potentially effective treatment (odds ratio [OR] 2.39; 95% CI 1.09–5.23) and poor feeling of well-being (≥4) (OR 2.38, 95% CI 1.34–4.21).

Conclusion. ECOG PS assessments by PC specialists and nurses were significantly higher than those of medical oncologists. Systematic efforts to increase regular interdisciplinary communications may help to bridge this gap. J Pain Symptom Manage 2015;49:1050–1058.

Key Words

ECOG performance status, palliative care specialist, nurse, medical oncologist, advanced cancer

Introduction

The Eastern Cooperative Oncology Group performance status (ECOG PS) is a universal marker that can be used to determine the feasibility of chemotherapy or clinical trial eligibility in the field of oncology.[1–3] It is also one of the most powerful prognostic factors for survival in advanced cancer patients.[4] As patients decline in their functional status,

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palliative care (PC) often plays an increasingly important role in patient care. This is particularly true when their ECOG PS is 3 or greater, defined as more than 50% of time in a bed or chair.[5,6] It may be too late to start end-of-life discussions when a patient arrives in a wheelchair for the first time.[7] ECOG PS might possibly serve as a common thread for linking PC and oncology practice and allow clinicians to detect subtle signs of functional decline earlier.[8]

Although interobserver agreements between medical oncologists are reported to be good,[9–11] there are some studies suggesting that medical oncologists tend to rate patients as having better PS compared with nurses or patients.[12–15] These studies have reported that the oncologist-rated ECOG PS grades were slightly more predictive of survival and thus more reliable as a prognostic factor.[12–14] However, a recent study has reported that a change in patient-reported impaired PS over time was significantly correlated with survival, whereas a change in the clinician-rated ECOG PS was not correlated.[16]

PC specialists conduct a thorough evaluation of a patient's physical and emotional symptoms and function in all clinical encounters. One study reported that PC physicians' and nurses' PS assessments showed moderate correlation with Edmonton Symptom Assessment System (ESAS) symptom distress scores.[15] As PC specialists usually focus more on symptom distress and functional status, it is possible that they may be more sensitive in detecting subtle changes in PS than medical oncologists.

However, there are no reported data on differences in PS assessments between medical oncologists and PC specialists or nurses. Based on the aforementioned assumptions, we hypothesized that there is a significant difference in ECOG PS assessments among PC specialists, PC nurses, and medical oncologists. In this retrospective study, we determined the interobserver differences in ECOG PS assessments between PC specialists, nurses, and medical oncologists in patients with advanced cancer. We also determined the correlation between PS assessments and symptom distress, the association between PS assessments and survival, and the factors associated with discordance in PS assessments.

Methods

Patients

We screened 762 consecutive patients who were evaluated for the first time by a PC specialist at the outpatient Supportive Care Center (SCC) of The University of Texas M. D. Anderson Cancer Center in 2013. Patients were eligible if they had a diagnosis of advanced cancer; met the primary medical oncologist and PC specialist within a period of one week; ECOG PS was documented by the PC specialist, PC nurse, and medical oncologist; and were 18 years or older. We defined advanced cancer as locally advanced, metastatic, or locally recurrent disease for solid tumors and as primary progressive or relapsed/refractory disease for hematologic malignancies. Locally advanced cancer patients who received curative surgery or definitive chemoradiation were not included. The Institutional Review Board at the M. D. Anderson Cancer Center approved this study and waived the requirement for informed consent.

Supportive Care Center

The outpatient SCC in the M. D. Anderson Cancer Center is led by 15 board-certified PC specialists. The interdisciplinary team members include registered nurses with specific training in PC, pharmacists, nutritionist, chaplain, social workers, and psychologists. The care of all patients is provided following a standardized management guideline.[17] Patients and their families are initially assessed by the PC nurse, using assessment tools such as the ESAS,[18,19] Memorial Delirium Assessment Scale,[20] Cut down/Annoyed/Guilty/Eye-opener (CAGE) questionnaire,[21] and ECOG PS.[1] The PC nurse discusses the results of the initial assessment with the PC specialist, including ESAS scores, medication review, and other findings. The PS documented by the PC nurse is usually not discussed with the PC specialist. After the discussion, the physician performs an interview and physical examination to assess the patient. The physician completes the PS assessment after visiting the patient, and it is part of the physician dictation recorded separately from the nurse's assessment. The patients are then managed by the appropriate interdisciplinary team members based on the individual needs of the patient and family.

Data Collection

We collected demographics, including age, gender, ethnicity, and marital status, from the electronic medical records. The ECOG PS assessments performed by a PC specialist, PC nurse, and a primary medical oncologist within one week of referral were retrieved. The following additional data were collected: cancer diagnosis, oncology subspecialty of the primary medical oncologist, weight loss in the prior six months (less than 5% vs. 5% or more), cancer treatment status (anticancer treatment vs. no anticancer treatment), the presence of an effective treatment option at the time of referral (present vs. absent), clinical trial enrollment at the time of referral (yes vs. no), date of diagnosis of advanced cancer, date of death or last follow-up, and survival status. A practicing medical