Predictors of Survival in Patients With Non-Small Cell Lung Cancer

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Lung cancer is the leading cause of cancer-related death in the United States and worldwide. The GLOBOCAN project estimated 1.61 million new cases (13% of all newly diagnosed cancers) and 1.38 million deaths (18% of all deaths) from lung cancer occurred in 2008 (Bray, Ren, Masuyer, & Ferlay, 2012). In the United States, more than 220,000 new cases of lung cancer were projected to occur in 2012 (American Cancer Society, 2012). Non-small cell lung cancer (NSCLC) accounts for about 80%–85% of all cases of lung cancer, and the majority of patients with NSCLC present with advanced-stage disease at diagnosis (Jemal et al., 2009). Chemotherapy confers a modest survival improvement for patients with advanced disease at diagnosis when compared with supportive care alone, yet the overall prognosis remains poor, with a median survival time of 4–15 months (Hotta et al., 2007). A meta-analysis supported that the benefit of adjuvant chemotherapy is 4%–5% at five years (Besse & Le Chevalier, 2012). Therefore, knowledge of the factors that predict clinical outcomes in patients with NSCLC is critical for determining disease prognosis and guiding treatment. In addition, nurses’ ability to recognize patients at high risk for poor survival might be enhanced by identifying predictors seen in everyday hospital charting of patients, potentially leading to earlier intervention.

Background

Determining survival prognosis in patients with lung cancer is challenging, as the majority of patients are diagnosed at a later cancer stage (Jemal et al., 2009). Although survival prognosis in NSCLC has been investigated, most studies were conducted for specific treatment protocols or changed certain patient characteristics. Factors generally predictive of survival outcomes remain controversial and inconclusive and vary by disease severity and age.

Accepted prognostic factors in patients with NSCLC include tumor stage, performance status, and possibly weight loss (Buccheri & Ferrigno, 2001; Grivaux et al.,...