Symptoms, Cytokines, and Quality of Life in Patients Diagnosed With Chronic Graft-Versus-Host Disease Following Allogeneic Hematopoietic Stem Cell Transplantation

Debra Lynch Kelly, PhD, RN, OCN®, Debra E. Lyon, RN, PhD, FAAN, Suzanne A. Ameringer, PhD, RN, Ronald K. Elswick Jr., PhD, NREMT-B, and John M. McCarty, MD

Hematopoietic cell transplantation (HCT) is the only curative therapy for many patients with hematologic, metabolic, and immunologic disorders. The number and efficacy of transplantations has increased. The goal of HCT is to cure the underlying disease by replacing destroyed, unhealthy cells with healthy stem cells (Majhail et al., 2012). With an increase in the number of allogeneic HCTs and a decrease in mortality because of earlier transplantation, a resultant shift of focus to survivorship issues has occurred (Flowers et al., 2008). A major survivorship issue for patients receiving allogeneic HCT is the development of graft-versus-host disease (GVHD). About 40%–80% of long-term survivors of HCT experience chronic GVHD (cGVHD), which is a serious and often life-threatening condition. cGVHD may carry a high symptom burden for patients that may negatively affect functional status and quality of life (QOL) (Antin, 2002; Baird & Pavletic, 2006).

The incidence of cGVHD is rising as an increasing number of transplantations are being performed, particularly in older patients (Hahn et al., 2013; Veltri et al., 2013). Adequate assessment and targeted therapeutic interventions to mitigate distressing symptoms and long-term complications of this chronic condition are needed (Pérez-Simón, Sánchez-Abarca, Diez-Campeolo, Caballero, & San Miguel, 2006). In addition, the identification of biomarkers associated with cGVHD is a priority for diagnosing and monitoring progression of cGVHD, as well as evaluating the efficacy of new therapies (Schultz et al., 2006).

Symptom management is a major concern for patients experiencing cGVHD (Lee, Cook, Soiffer, & Antin, 2002; Pérez-Simón et al., 2006). However, a gap in the literature remains that establishes the relationship between symptoms and QOL in individuals with cGVHD (Lynch Kelly, 2014). Little study has been performed on the relationship between symptoms and biologic markers of cGVHD despite that the interplay between biologic markers and symptoms may affect the frequency and severity of symptoms experienced by patients with cGVHD (Lynch Kelly, 2014). The