

# Fatigue and Depression in Patients With Lymphoma Undergoing Autologous Peripheral Blood Stem Cell Transplantation

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**Purpose/Objectives:** To describe the patterns of depression and fatigue, including its dimensions, and the relationship between these two variables in patients with lymphoma undergoing autologous peripheral blood stem cell transplantation (PBST).

**Design:** Prospective, descriptive, correlational, repeated measures.

**Setting:** Midwestern university National Cancer Institute-designated clinical cancer center.

**Sample:** 27 patients with lymphoma aged 19–71 undergoing autologous PBST.

**Methods:** The revised Piper Fatigue Scale was used to measure fatigue and its dimensions. The Center for Epidemiologic Studies–Depression Scale was used to measure depression on selected days at baseline and during chemotherapy and recovery.

**Main Research Variables:** Fatigue and its four dimensions (behavioral/severity, sensory, cognitive/mood, and affective meaning) and depression.

**Findings:** Total fatigue, fatigue's four dimension scores, and depression scores changed significantly over time, with the highest scores at day +7 after transplant. Total fatigue and the four dimension scores were highly and positively correlated with depression, with the highest correlation reported between the affective fatigue dimension and depression.

**Conclusions:** The findings support the importance of assessing fatigue and depression in patients undergoing autologous PBST at baseline, during chemotherapy, and throughout recovery.

**Implications for Nursing:** Routine clinical assessment with close observation around day +7 after transplant and patient education about the patterns of fatigue and depression will help the healthcare team to intervene at the appropriate time and may help patients to better manage these symptoms.

## Key Points . . .

- ▶ Little is known about the patterns of fatigue and its four dimensions or depression in patients undergoing autologous peripheral blood stem cell transplantation.
- ▶ Assessment of fatigue and depression is important and should be ongoing.
- ▶ Patients' fatigue and depression peak in the immediate recovery period (day +7 after transplant).

transplantation are troubled by the side effects associated with this treatment. Fatigue and depression are among the most significant treatment side effects.

Although fatigue has been studied, most of these studies have been conducted on patients receiving standard-dose chemotherapy, not those undergoing stem cell or BMTs (Hann et al., 1999). However, these related studies support the linking



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The American Cancer Society estimated that 62,250 new cases of lymphoma will be diagnosed in the United States in 2004; of these, 7,880 will be Hodgkin disease and 54,370 will be non-Hodgkin lymphoma (Jemal et al., 2004). In 2000, the last year for which the estimated number of patients with lymphoma who underwent autologous peripheral stem cell or bone marrow transplantation (BMT) in North America is available, 4,500 of the 11,000 autologous transplants for all kinds of cancer were done for lymphomas (International Bone Marrow Transplant Registry/Autologous Blood and Bone Marrow Transplant Registry, 2002). Many patients who receive ablative therapy as a preparation for