## Improving Awareness, Identification, and Management of Sarcopenic Obesity in Cancer Survivors: An Evidence-Based Toolbox

Sarah Lindsey, DNP, APN, ACNS-BC, AOCNS®, Kim Schafer Astroth, PhD, RN, and Pankaj Kumar, MD



Ron Channie Stock/Ron Channie Studios/Thinks

**Background:** Sarcopenic obesity, the dual condition of decreased muscle mass with increased fat mass, can affect morbidity, mortality, and quality of life in adult cancer survivors. **Objectives:** The purpose of this project was to determine the effects of the use of an educational toolbox on advanced practice nurses' (APNs') confidence in identifying and managing adult cancer survivors at risk for sarcopenic obesity.

**Methods:** APNs in an outpatient practice who care for adult cancer survivors received an educational toolbox with strategies to identify and manage adult cancer survivors at risk for sarcopenic obesity.

**Findings:** APNs reported being more confident in their ability to identify adult patients with cancer at risk for sarcopenic obesity and in their ability to manage these patients compared to prior to the intervention. Educational resources provided an effective tool for identifying and managing patients at risk for sarcopenic obesity.

Sarah Lindsey, DNP, APN, ACNS-BC, AOCNS®, is an advanced practice clinical nurse specialist at Illinois CancerCare in Peoria; Kim Schafer Astroth, PhD, RN, is an associate professor in the Mennonite College of Nursing at Illinois State University in Normal; and Pankaj Kumar, MD, is a physician at Illinois CancerCare. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Lindsey can be reached at slindsey8990@gmail.com, with copy to editor at CJONEditor@ons.org. (Submitted September 2015. Revision submitted November 2015. Accepted for publication November 28, 2015.)

Key words: cancer rehabilitation; nutritional aspects; physical activity and exercise; survivorship issues

Digital Object Identifier: 10.1188/16.CJON.E132-E138

ancer survivors are at greater risk of recurrent disease, development of new cancers, and long-term morbidity as compared to those without a cancer diagnosis, likely because of factors associated with their disease, its treatment, and unhealthy lifestyle behaviors (e.g., obesity, lack of physical activity) (Centers for Disease Control and Prevention [CDC], 2012). Consequently, oncology professionals should develop cancer survivorship programs that help prevent or reduce risks of new or recurrent cancers, provide cancer surveillance, and assess for late psychosocial and medical effects of cancer and its treatment; they should also intervene as needed (CDC, 2012; Hewitt, Greenfield, & Stovall, 2006).

Awareness of sarcopenic obesity and its importance in a survivor's optimal physical function could play a significant role in survivorship programs. Sarcopenic obesity is a loss of muscle mass (sarcopenia) coupled with an increase in fat mass (obesity) (Fielding et al., 2011). This dual condition can synergistically exacerbate functional decline and negatively affect

health and quality of life more so than obesity or sarcopenia alone (Batsis et al., 2013). Sarcopenic obesity can be caused by aging and the effects of disease or treatment, and it escalates the risks of toxicity, morbidity, and mortality in adult cancer survivors (Chung, Kang, Lee, Lee, & Lee, 2013; Del Fabbro et al., 2012). Ormsbee et al. (2014) hypothesized that sarcopenic obesity may be present in more individuals at diagnosis of conditions like cancer than in those without disease. Other researchers have found that weight gain because of chemotherapy for breast cancer shows a distinctive pattern of sarcopenic obesity in women undergoing treatment (Markes, Brockow, & Resch, 2006). Despite its clinical importance, sarcopenic obesity is under-recognized (Batsis et al., 2013; Chung et al., 2013).

## **Background**

Body mass index (BMI) alone is not sensitive enough to identify muscle wasting, obesity, or sarcopenic obesity,