■ Article

Biologic, Demographic, and Social Factors Affecting Triple Negative Breast Cancer Outcomes

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Background: Triple negative breast cancer (TNBC) is an aggressive breast cancer subtype that disproportionately affects women who are African American, younger, or carriers of the *BRCA1* gene. No targeted treatments exist for the disease, which has distinct features and presents unique challenges to patients who have been diagnosed with it.

Objectives: TNBC is reviewed in this article according to incidence, tumor grade, stage of diagnosis, biologic and social risk factors, mortality, and treatment.

Methods: Published articles pertaining to TNBC and located through online database searches were reviewed. Articles were selected either because they offered the most current information about TNBC or contributed to the understanding of TNBC.

Findings: Biologic, demographic, and social factors present unique challenges in the treatment of women with TNBC. Knowing about the characteristics of TNBC and the populations who are most at risk for the disease might help healthcare providers better respond to their patients. It may also facilitate responsiveness to patients' needs and enhance their quality of life.

Breast cancer is the most common solid malignancy in women aged 20–59 years and the second most common, after lung cancer, in women aged 60 years and older (Siegel, Ma, Zou, & Jemal, 2014). Breast cancer is the leading cause of female cancer deaths in the United States in women aged 40–79 years, as well as the second major cause of female cancer deaths in women aged 20–39 years and in those aged 80 years and older (Siegel et al., 2014). In 2014, 232,670 women in the United States were expected to be diagnosed with breast cancer, and about 40,000 women were expected to die from the disease (Siegel et al., 2014). More than 2.8 million women in the United States are current survivors of breast cancer (American Cancer Society, 2014). The purpose of this article is to examine the incidence, tumor grade, stage of diagnosis, biologic and social risk factors, mortality, and treatment of triple negative breast cancer (TNBC).

Triple Negative Breast Cancer Characteristics

Although many subtypes of breast cancer exist, TNBC is defined by the lack of estrogen, progesterone, and human epidermal growth factor receptors. The absence of these three receptors limits treatment options because TNBC does not respond to targeted therapies, such as the use of tamoxifen to treat estrogen receptor–positive tumors (Hugh et al., 2009). Other characteristics of TNBC include high histologic grade, which is indicative of aggressive disease, poor prognosis, increased risk of recurrence within the first three years after diagnosis, and high five-year mortality rates (Arslan, Dizdar, & Altundag, 2009; Chacón & Costanzo, 2010; Ihemelandu et al., 2008; Lara-Medina et al., 2011; Ray & Polite, 2010). The pattern of recurrence for TNBC differs somewhat from that of other breast cancers; the risk of TNBC recurrence is most likely within one to three years