

# Cognitive Screening

## Using the clock-drawing test to assess for preexisting deficits in older women diagnosed with breast cancer

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**BACKGROUND:** Older women diagnosed with breast cancer may also have preexisting cognitive deficits.

**OBJECTIVES:** The aim of the current study is to describe errors on the clock-drawing test (CDT), which is used to screen for preexisting cognitive deficits in older women diagnosed with breast cancer.

**METHODS:** This descriptive study included a convenience sample of women aged 69 years or older with a diagnosis of breast cancer. The CDT was used to screen for cognitive deficits, such as size of the clock, graphic difficulties, stimulus-bound response, conceptual deficit, spatial and/or planning deficit, and perseveration. Data were analyzed by the Rouleau qualitative error analysis.

**FINDINGS:** Many older adult patients exhibit some abnormality on the CDT. Most abnormalities were spatial/planning difficulties. Cognitive screening should be included in the comprehensive assessment of older adults diagnosed with breast cancer to screen for preexisting cognitive limitations.

### KEYWORDS

comprehensive geriatric assessment; geriatrics; oncology; dementia; clock-drawing test

### DIGITAL OBJECT IDENTIFIER

10.1188/17.CJON.489-498

**MANY OLDER WOMEN WITH BREAST CANCER** are also diagnosed with the comorbidity of dementia (Mandelblatt et al., 2014). Breast cancer most often affects women aged 55–64 years, and the median age of diagnosis in the United States is 61 years (National Cancer Institute [NCI], 2014). About 46% of older adult patients with a solid tumor screen positive for cognitive deficits prior to initiating any treatments (Libert et al., 2016).

About 33% of older adult patients with breast cancer who were also diagnosed with dementia will die within six months of a malignancy (Raji, Kuo, Freeman, & Goodwin, 2008). In terms of two-year survival, patients with cancer who were also diagnosed with dementia are as many as six times more likely to die as compared to those who were not diagnosed with dementia (Libert et al., 2016). The purpose of this research was to screen for preexisting cognitive deficits in older women diagnosed with breast cancer as evidenced by errors detected on the clock-drawing test (CDT) using Rouleau qualitative error analysis (Rouleau, Salmon, Butters, Kennedy, & McGuire, 1992). Because of the incidence of breast cancer, as well as the incidence of dementia in older adult patients (NCI, 2014; World Health Organization [WHO], 2016), highlighting the coexistence of dementia or cognitive deficits is important in older adult patients with breast cancer. Early detection can help with planning and managing cognitive decline and with decisions regarding cancer treatment.

### Objectives

The specific aims of the current study are the following:

- Describe the demographic characteristics of older adult women diagnosed with breast cancer who underwent cognitive screening using the CDT.
- Describe the errors detected on the CDT in older adult patients with breast cancer.
- Characterize cognitive deficits by using Rouleau qualitative error analysis on the CDT.

### Dementia

The Centers for Disease Control and Prevention ([CDC], 2015) defines dementia as a group of cognitive disorders that consist of memory deficits, behavioral disabilities, and disturbance of executive function. The National Institute on Aging (2016a) defines dementia as a loss of cognitive functions regarding thinking, remembering, and reasoning. Dementia serves as a general term relating to the chronic, irreversible damage caused to cognitive