

# Familiarity and Perceptions of Ovarian Cancer Biomarker Testing and Targeted Therapy: A Survey of Oncology Nurses in the United States

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**OBJECTIVES:** To assess oncology nurses' awareness of biomarker testing and targeted therapy for ovarian cancer.

**SAMPLE & SETTING:** 100 oncology nurses completed an online survey in June 2022.

**METHODS & VARIABLES:** A cross-sectional survey was used to examine nurses' understanding of ovarian cancer testing and treatments, assess barriers, and identify opportunities for further education.

**RESULTS:** Almost all respondents believed biomarker testing and targeted therapy were very/extremely important in diagnosing and supporting treatment of patients with ovarian cancer. Nurses were very/extremely familiar with cancer antigen 125 and germline testing, but fewer reported the same familiarity with somatic testing. Most nurses were familiar with targeted therapy for ovarian cancer, but only about half were very/extremely familiar with poly(ADP-ribose) polymerase (PARP) inhibitors. Less than half felt highly knowledgeable about PARP inhibitors.

**IMPLICATIONS FOR NURSING:** It is important that oncology nurses understand biomarker testing and targeted therapy. There is an opportunity to provide resources to nurses to help them become more comfortable with PARP inhibitors in particular.

**KEYWORDS** oncology nursing; ovarian neoplasms; biomarkers; PARP inhibitors

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Oncology care has shifted in the past 30 years from broad chemotherapeutics, which selectively remove rapidly growing/cycling cells, to targeted therapies that inhibit signaling pathways specifically activated within that cancer type (Falzone et al., 2018; Hanes, 2020; Miller, 2022; Shahid et al., 2019). Precision medicine is defined as “a form of medicine that uses information about a person’s own genes or proteins to prevent, diagnose, or treat disease. In cancer, precision medicine uses specific information about a person’s tumor to help make a diagnosis, plan treatment, find out how well treatment is working, or make a prognosis” (National Cancer Institute, n.d.). Specifically, precision oncology uses biomarkers—a variety of molecular, genetic, and genomic data—to identify patients who are most likely to respond to a particular treatment (Senft et al., 2017). Precision oncology may improve cancer care by increasing survival and improving patients’ quality of life, but it is complex and continually evolving (Lassen et al., 2021; Mateo et al., 2022).

Although targeted therapies have been widely used in other cancers, such as breast, lung, and colon, a literature review conducted for the purpose of this study found that they are relatively new to the management of ovarian cancer (Diab & Muallem, 2017; Guan & Lu, 2018; Lim & Ledger, 2016; Wang et al., 2020). In addition, the lower incidence of ovarian cancer compared with other cancers (American Cancer Society, 2023a, 2023b, 2023c) means that oncology nurses may encounter this diagnosis less often in practice. Ovarian cancer care is often provided in a subspecialized setting, such as a gynecologic oncology practice; therefore, nurses in general