

Immuno-oncology is a complex treatment paradigm for many malignancies. As a result, nurses need to increase their knowledge awareness regarding safe, evidence-based care of patients who receive oncologic immunotherapy with their treatment regimen. This pilot study looks at nurse confidence levels specific to the challenges associated with this complex treatment. The Oncology Nurse Immunotherapy Confidence Survey, developed for this project, allowed for 28 confidence measurements, demographic collection, and a brief quasi-thematic analysis. The pre- and posteducation confidence scores demonstrated a 51% overall improvement.

#### AT A GLANCE

- Nursing confidence is improved with treatment-related, drug class-specific education.
- As new, complex treatments enter the oncology landscape, continuing education is essential for optimal nursing care.
- The complexity of care dictates a need to reevaluate not only the educational process, but also how the clinical environment is staffed and managed.

#### KEYWORDS

immunotherapy; monoclonal antibodies; immune check-point inhibitors; oncology

#### DIGITAL OBJECT IDENTIFIER

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# Immunotherapy Assessment

Using a survey instrument to examine oncology nurses' confidence levels with administration and management

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Immunotherapy is changing the standard of care for many malignancies and increasing the complexity of patient management across the spectrum of cancer care (Bayer et al., 2017; Chalmers et al., 2018; Clarke et al., 2018; Prettyman et al., 2018; Wang et al., 2019). The need for ongoing education for nurses providing the care is paramount for safe delivery of this treatment modality (Peek, 2015). However, as the complexity of cancer care shifts, questions arise. How is the education that is being provided perceived by the nurses delivering the care? How are nurse confidence levels affected as a result of the education that is received specific to the nurses' perceived ability to provide the complex care that is expected?

## Background

The augmentation of antitumor immune activity, controversial during much of the 20th century, is demonstrating durable response in cancer treatment (Decker et al., 2017). This paradigm shift within the cancer treatment landscape has had an impact on how nurses are educated and how the patient's care is managed (Madden, 2018). The unique immune toxicity profile associated with oncologic immunotherapy presents challenges with both identification and management of the immune-related adverse events that may occur (Brigden et al., 2016). Early recognition is critical to limiting the onset of serious sequelae, potentially leading to fatal outcomes (Brigden et al., 2016). An

essential element in adverse event management is the appropriate education of the patient and the caregiver, a task often falling to the oncology nurse (American Nurses Association, 2015). Articulation of the information associated with immunotherapy cancer treatment is hindered when the nurses' comprehension of the treatment is incomplete (Dine et al., 2017).

## Methods

This research pilot study evaluated the confidence levels of nurses, who manage and administer immunotherapy to patients in the community oncology setting, after receiving an education intervention. Purposive sampling identified 10 oncology RNs working in the community setting throughout northern and eastern Texas. As a result of the COVID-19 pandemic, the project incorporated a mix of both live and virtual classrooms for the intervention.

Expedited institutional review board (IRB) approval was received from the Regis College IRB in Weston, Massachusetts. An IRB amendment was necessary because of COVID-19 pandemic restrictions. Established as a quantitative, correlational study, the outcome was a pilot study with a small sample, which was also related to pandemic restrictions.

## Survey Instrument and Educational Intervention

The Oncology Nurse Immunotherapy Confidence Survey was developed for use with this study. Face and content validity was confirmed using five immuno-oncology