Implementation of a Patient Acuity Tool and Safe Staffing Model in an Outpatient Oncology Clinical Trials Unit

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Appropriate staffing in the outpatient oncology setting contributes to the delivery of quality care. Objective measures of acuity and nursing workload can assist with developing staffing models; however, measuring acuity in an early phase clinical trial outpatient setting can be challenging. Treatment nurses in this setting perceived that the patient acuity tool (PAT) did not accurately capture the high variance in patient complexity, which led to inequitable workload distribution. Nursing leadership, in collaboration with treatment nurses, updated the existing PAT. Enhancing the PAT led to nursing assignments based on objective acuity, rather than traditional volume-based or subjective variables. A growth formula algorithm provided quantifiable data to justify three additional treatment nurse positions, even as average patient volume remained stable.

AT A GLANCE

- Accurately measuring patient acuity allows for safer staffing ratios and workload balance.
- Patient acuity allows for meeting staffing needs based on acuity rather than volume.
- A PAT developed for the outpatient oncology clinical trial setting can capture nursing workload, patient care, and clinical trial protocol requirements.

KEYWORDS
acuity scale; patient acuity tool; clinical trials; research; early phase trials

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Discovery and advancement of new treatments through clinical trials is the cornerstone of oncology care (Ness & Royce, 2017). As the push to advance treatment and improve outcomes for patients with cancer continues, the number of early phase clinical trials (i.e., phase 1 and phase 2) is rising, increasing the complexity of care for trial participants (Hong et al., 2021). Phase 1 clinical trials focus primarily on the safety profile of a new medication, such as side effects and safest dose, and phase 2 trials assess medication effectiveness (University of Texas MD Anderson Cancer Center, n.d.). Early phase clinical trials can have numerous post-treatment research activities, including multiple blood draws, electrocardiograms, direct observation, and occupation of treatment space across multiple hours. Because clinical trials rely on people as research participants, maintaining patient safety during early phase trials is the top priority. Nurses who care for these patients must be aware of the specific protocol requirements and patient care needs to avoid protocol deviations that can affect patient safety, trial outcomes, or the integrity of the research facility (Oncology Nursing Society, 2019; Rudnitzki et al., 2018).

Accurately measuring clinical research acuity ensures patient safety, appropriate staffing, and resource allocation (Brennan et al., 2019; Oncology Nursing Society, 2019). Because of subjective judgment in nurse-created patient assignments, acuity assessments can often vary (DiClemente, 2018). In addition, nurse staffing decisions can be based on financial decisions and acuity tools that may not capture the unique complexities of clinical trial nursing care (Brennan et al., 2019; Leary & Punshon, 2019). Objectively measuring acuity can lead to improved staff satisfaction and care delivery while supporting balanced nursing assignments and resources (DiClemente, 2018; Firestone-Howard et al., 2017; Oncology Nursing Society, 2019).

The Northwestern Medicine Developmental Therapeutics Institute (NMDTI) at Northwestern Memorial Hospital and the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, both in Chicago, Illinois, specialize in performing early phase oncology clinical trials for adult patients. Traditional patient–nurse ratios were 4:1, with no accounting for patient acuity. Based on staff feedback and concerns, a patient acuity tool (PAT) was developed to capture nursing workload and to help establish