

# The Impact of Independent Chemotherapy Prescribing by Advanced Practice Providers on Patient Safety and Clinician Satisfaction

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**BACKGROUND:** Literature on advanced practice providers (APPs) prescribing chemotherapy independently, without physician cosignature, is limited.

**OBJECTIVES:** This project assessed safety and provider satisfaction for an existing independent APP chemotherapy prescribing privilege at a National Cancer Institute–designated comprehensive cancer center.

**METHODS:** Rate of Reporting to Improve Safety and Quality events associated with APPs with independent chemotherapy prescribing privileges was compared to that of physicians during a three-year period. Satisfaction of APPs with independent chemotherapy prescribing privileges was evaluated.

**FINDINGS:** The odds of a reported event were higher for physicians than for APPs. APP survey responses were positive for readiness, confidence, and satisfaction with independent chemotherapy prescribing privilege.

## KEYWORDS

chemotherapy prescribing; advanced practice provider; nurse practitioner

## DIGITAL OBJECT IDENTIFIER

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**THE GLOBAL INCIDENCE OF CANCER IS EXPECTED** to rise to 30 million by 2040 (International Agency for Research on Cancer, 2024). As cancer burden increases, demand for active treatment rises (American Cancer Society, 2023; American Society of Clinical Oncology [ASCO], 2017). Chemotherapy continues to play a significant role in the treatment of most cancers. The number of patients requiring chemotherapy is expected to increase by 53% globally and by 40% in North America by 2040 (Wilson et al., 2019).

Chemotherapy is considered a high-alert medication by the Institute for Safe Medication Practices (2021). Many chemotherapy drugs are toxic, with narrow therapeutic indices, and they often require multiple dosage adjustments as well as close monitoring of laboratory parameters and patient symptomatology. Although all stages of the chemotherapy process, including prescription, preparation, dispensing, and administration, are considered high risk and prone to errors, most chemotherapy errors occur at the prescription stage (Afrash et al., 2022; Rahimi et al., 2019). Patients being treated for cancer can be more susceptible to prescribing errors; they may be physiologically compromised by the disease and its effects (Weingart et al., 2018). Advances in cancer treatment have also led to novel complex drug regimens, including immunotherapy, which adds to the intricacies of the prescribing process (Weingart et al., 2018). An understanding of this tightly interconnected system is critical for safe chemotherapy prescribing and management.

Nurse practitioners and physician assistants (PAs), referred to as advanced practice providers (APPs), play a vital role on the oncology care team. They contribute to high-quality care and are trained and competent to perform a variety of clinical responsibilities, including prescribing chemotherapy (ASCO, 2017; Bruinooge et al., 2018). Although the literature lacks evidence of independent APP chemotherapy prescribing practices, standards of clinical practice have required physician oversight of APPs who prescribe chemotherapy, given the associated complexity and high-risk nature of the drugs, even though this activity is within the APP scope