

# Advanced Practice Providers in Oncology Care: Consensus Principles for Clinical Practice Utilization

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## Abstract

Advanced practice providers (APPs) play a critical role in delivering high-quality patient-centered care within oncology. The National Comprehensive Cancer Network Best Practice Committee's APP workgroup generated consensus principles to optimize the potential of APPs, promote professional growth, foster interdisciplinary collaboration, and establish APP leadership structures within organizations to meet the evolving demands of oncology care. This article outlines the stepped approach to develop consensus-based principles to enhance the effectiveness of APPs providing oncology care.

From the advent of advanced practice providers (APPs) in 1965 to today, APPs have expanded their roles. They have transitioned from historically working in underserved communities to practicing in a multitude of settings inclusive of specialty care such as oncology. Advanced practice providers contribute to oncology care delivery in a variety of roles along the continuum of prevention to survivorship to end-of-life care (Bapat et al., 2019; Bruinooge et al., 2018; Cairo et al., 2017; Hylton &

Smith, 2017; Iannelli et al., 2023; Nolan et al., 2019; Pickard et al., 2023; Reynolds & McCoy, 2016; Thom et al., 2019). They contribute to improved patient outcomes and demonstrate high utility and productivity (Austin et al., 2021; Broman et al., 2021; Cairo et al., 2017; Hylton & Smith, 2017; Johnson et al., 2019; Krause et al., 2022; Martin et al., 2020; Paez et al., 2022; Pickard et al., 2023).

Despite the evolution of APPs practicing in oncology, utilization and integration of APPs may vary across institutions. This variation is

influenced by differences in state licensure and scope of practice regulations, inconsistent leadership structures (Arthur et al., 2020), and differing productivity and utilization standards. In 2018, the National Comprehensive Cancer Network (NCCN) Best Practice Committee (BPC) convened a workgroup of APP and physicians to build upon previous work related to addressing the value of APPs in oncology. The initial APP workgroup reviewed NCCN BPC surveys publishing recommendations to standardize staffing and productivity metrics inclusive of normalizing APP leadership structures (Austin et al., 2021). A follow-up publication recommended oncology institutions employ a well-rounded strategy to measure APP productivity beyond revenue-generating activities (Krause et al., 2022). A second APP workgroup was convened in 2023 to build upon the concepts generated from the first workgroup and to evaluate best practices from NCCN Member Institutions regarding APP professional and clinical value. This article describes the iterative process to develop consensus-based principles for APPs practicing in oncology.

## METHODS

The NCCN is a not-for-profit alliance of 33 leading cancer centers devoted to patient care, research, and education. In collaboration with leaders and clinical experts from NCCN Member Institutions, NCCN develops resources that provide valuable information to numerous stakeholders and are utilized worldwide. The NCCN BPC is comprised of senior physician and administrative leaders who work toward improving the effectiveness and efficiency of cancer center operations through sharing operational best practices. Topics of interest are identified by BPC members and information sharing occurs through surveys, expert-led presentations, or ad hoc workgroups.

The NCCN Best Practices APP Workgroup was convened by the BPC in 2023 and is comprised of APP, administrative, and physician leaders representing 23 academic cancer centers. Most representatives held roles in the outpatient setting, with several bringing inpatient experience as well. From June 2023 through August 2023, workgroup members reviewed all work previously performed by the BPC on oncology APPs,

which included nine surveys, six expert presentations, and two manuscripts. The workgroup at large used data combined with expert opinion and additional academic publications to develop a list of key principles regarding APP utilization in oncology. The principles were consolidated and prioritized through a facilitator-led discussion until consensus on four leading concepts emerged.

A subgroup was then formed for each concept consisting of four to five members assigned based on interest and area of expertise. Subgroups met from September 2023 to December 2023 to review and refine principles. Each subgroup was tasked with conducting a literature review to identify relevant data, discussing and debating case exemplars, and drafting final verbiage and a summary statement for each principle. Final work was reintroduced to the workgroup at large and the BPC for a final round of feedback.

## RESULTS

### **Principle 1: Empower APPs to Utilize the Full Extent of Their Education, Training, and Clinical Expertise to Practice at Top of Skillset and License/Certification**

Advanced practice provider scope of practice is variable and informed by a broad range of factors, although largely by state laws/regulations. Advanced practice providers should be supported in practicing at the highest state level and certification if skillsets align. At the institutional level, this requires thoughtful design and allocation of responsibilities to ensure patient needs are met while maintaining challenging and fulfilling roles for APPs.

### **Principle 2: Strive to Implement Advanced Practice Leadership, Allowing APPs to Report to and Be Evaluated by APPs**

The role of the APP in team-based cancer care is critical to safe, high-quality, and effective care. Fostering the growth and success of APPs requires clinical mentorship, often from physician counterparts, but also a thoughtful and consistent management structure. As the role of APPs continues to evolve, the organization and governance of APPs require intentional design to ensure proper alignment, professional practice, and compliance with applicable rules and regulations. Unlike physicians, APP practice is regulated at the state

level with a high degree of variability. The professional practice, competencies, and scope of work completed by APPs require direction from those knowledgeable in the APP professions. It is best practice to ensure that there is a robust APP leadership structure and that APPs report to other APPs to create top-of-license practice, professional development, and team-based care that is focused on the patient.

### **Principle 3: Encourage a Comprehensive Approach to Measuring APP Productivity and Value**

Advanced practice providers often fill varied and unique roles within cancer care teams, performing many activities that may not translate to traditional clinical metrics such as relative value units (RVUs). Therefore, it is important that the impact of APPs be measured broadly, using a combination of team-based and individual metrics that are inclusive of both patient-facing and non-patient facing tasks. Base measurements should reflect the output of entire disease-based teams, not individuals, but may be supplemented by individual patient volumes, care coordination tasks, and/or patient satisfaction. Value and productivity measures of physicians and APPs should be complementary rather than competitive.

### **Principle 4: Promote the Advancement and Professional Development of APPs Through Support of High-Quality Training, Continuing Education, Research, and Scholarship**

The APP profession is a rapidly expanding work force in oncology; however, this rapid growth sometimes outpaces employee integration and support programs for these roles. Onboarding and continued education are vital components for the success and satisfaction of the APP in all practice settings. Retention of APPs over time is extremely important to maintain highly qualified providers and quality patient care. Additionally, integration of institutional systems for APP professional development and career advancement is integral to maintaining APP engagement and longevity. Involvement in research, quality improvement, and other scholarly activities promotes job satisfaction and reduces burnout and attrition (Arthur et al., 2020; McComiskey et al., 2018). While purely

clinical roles serve an important purpose in cancer care, when an APP's interests extend beyond the clinic, it is best practice to promote clinical, educational, and professional development by prioritizing and supporting APPs through high-quality training, continuing education, research, and scholarship.

## **DISCUSSION**

The NCCN BPC APP workgroup developed these consensus principles to acknowledge the essential value of APPs' role in oncology and provide guidance for optimizing their integration into cancer care.

Principle 1 is rooted in the benefit derived from APPs practicing to their full scope, as granted by state boards. This can improve workflow efficiency and drive patient-centered care. Advanced practice providers clinically practicing at top of license demonstrate benefits for the organization without compromising patient satisfaction, as well as generate self-satisfaction for APPs (Kidd et al., 2023; Kosty et al., 2016; Kurtin et al., 2023a; Pickard et al., 2023).

Additionally, as outlined in Principle 4, encouraging APPs to engage in professional development through continuous education and scholarship activities, such as research and evidence-based practice (Kurtin et al., 2023b), is essential to ensuring they remain engaged and active contributors to health-care knowledge. Investing in the professional growth of APPs can improve patient outcomes, increase clinical networking (Triglianos et al., 2024), enhance clinical trial operations (Braun-Inglis et al., 2023; Colwell & Demirhan, 2025), and is cited as a factor for job satisfaction (Austin et al., 2021; Baugh et al., 2024).

Historically, APPs have reported to either nursing or physician leaders, which has often been a source of APP dissatisfaction (Klein et al., 2020; Proulx, 2021). However, there is an emerging trend in academic centers where APPs report to APPs, which is the genesis behind Principle 2. Providing the infrastructure and thoughtful planning for APP leadership development enhances the ability for APPs to be system and organizational contributors (Proulx, 2021; Whitfield et al., 2024) and allows the system to retain APPs (Zhao et al., 2024). Advanced practice leaders

have oversight of APP practice by ensuring clinical competency and compliance with state and institutional standards. Continued evolution of APP leadership structure could offer promotional opportunities for people managers, leverage the clinical expertise of the APPs for regional and national reputation, as well as contribute through research or evidence-based projects (Braun-Inggris et al., 2023; Kurtin et al., 2023b; Proulx, 2021).

The workgroup also recommended in Principle 3 a comprehensive approach to measuring APP productivity, as RVUs are only one measure (Krause et al., 2022). For example, Stanford Health Care showed an increase in productivity outcomes after standardizing APP utilization (Kuriakose et al., 2022). Additionally, non-billable APP responsibilities, such as time spent on care coordination and administrative tasks related to clinical care (e.g. prior authorization, peer-to-peer reviews), should be considered when evaluating workload (Hylton & Smith, 2017; Krause et al., 2022).

Advanced practice providers are critical to the future of oncology care due to the mounting complexity of care and growing administrative burdens, such as prior authorizations (Trapani et al., 2023). These needs, coupled with projected physician shortages (Hylton & Smith, 2017; Shulman et al., 2020) and a growing patient population, inclusive of both those living with and beyond cancer, underscore the value of these roles in oncology. Empowering APPs to practice at full scope and continue their education through professional development promotes job satisfaction and reduces burnout (Baugh et al., 2024; Klein et al., 2020; Kurtin et al., 2023c; Zhao et al., 2024). This, in turn, helps retain skilled providers and stabilizes oncology care teams. Furthermore, implementing an APP leadership structure and a comprehensive approach to measuring productivity can also positively impact satisfaction and engagement among APPs. The NCCN BPC APP workgroup's consensus principles offer a framework for APPs and oncology institutions to maximize the potential of APPs, promote professional growth, and establish APP leadership structures within organizations to meet the evolving demands of oncology care. ●

### Disclosure

The authors have no conflicts of interest to disclose.

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