

## The Critical Role of Oncology Nurse Practitioners in Cancer Care: Future Implications

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According to the Association of American Medical Colleges (2007), the numbers of people diagnosed and living with cancer will rise by 81% by 2020, yet the American Society of Clinical Oncology (ASCO) released a report projecting a serious shortfall of trained oncology specialists by 2020 (Association of American Medical Colleges). Visit demands are projected to grow at a much quicker pace than the number of visits oncologists can provide (Erikson, Salsberg, Forte, Bruinooge, & Goldstein, 2007; Yu, 2007). The pivotal role that oncology nurse practitioners (NPs) will play in improving patient care and increasing access for patients with cancer to oncology care must be addressed. Oncology NPs should become leaders in clinical management of patients with cancer now and in the future, particularly in view of the anticipated shortage of oncology specialists.

### Opportunities

The shortfall of oncologists is viewed by many as an opportunity for oncology NPs to become part of a major solution in caring for the future oncology population (Carroll-Johnson, 2007; Erikson et al., 2007; Hortobagyi, 2007; Yu, 2007). A survey of practicing oncologists in 2006 found that 54% of oncologists surveyed already worked with either an oncology NP or a physician's assistant; however, the exact role of the midlevel providers is less clear (Erikson et al.). Only a small percentage of oncology NPs is estimated to act in an advanced role, providing services such as autonomous symptom management to a select population; performing invasive procedures such as bone marrow biopsy, paracentesis, and intrathecal chemotherapy; writing chemotherapy orders; seeing new patients; and making hospital rounds. In fact, no standardized role description exists for

oncology NPs (ASCO, 2005; Bush & Watters, 2001; Maluso-Bolton, 2006). Furthermore, the role is somewhat dependent on the collaborative agreement between a physician and an oncology NP, the experience of the NP, the comfort level of the oncologist in terms of delegating responsibilities, and the prior experiences the physician has had working with NPs (ASCO; Bush & Watters; Yu).

Advanced oncology NPs are considered experts in oncology nursing and practice in the medical and nursing domains to provide nursing and medical care to the cancer population (Oncology Nursing Society [ONS], 2003). Maximizing the unique talents of oncology NPs and allowing them to function to the fullest extent of their education and state practice acts will provide one solution to the projected shortfall of oncologists. Examining this solution of using oncology NPs to their fullest extent is important to minimize interruptions in care and unequal access for future patients with cancer.

### Historical View of Nurse Practitioners

The first NP program was developed in 1965 by Loretta Ford at the University of Colorado. The NP program was based on a model for health promotion and disease prevention for a pediatric population (Mezey, McGivern, & Sullivan-Marx, 2004). In the 1970s, graduate programs began to offer NP education. By 1979, the National League for Nursing published a position paper stating that NPs needed a master's degree in nursing to practice competently; yet NP education also takes place in post-master's programs. The original primary-care specialties have evolved to include other specialties, such as psychiatric and mental health, acute care, palliative care, and oncology (National League for Nursing; Wheeler

& Haber, 2004). The impact and value of pediatric, family, and adult NPs are studied frequently and are well established in the literature. Early and continued research evaluating the roles has validated the quality, cost-effectiveness, patient satisfaction, and competency of NPs in primary practice settings (Landro, 2008; U.S. Congress, Office of Technology Assessment, 1986). However, the newer, emerging specialties such as oncology are less defined and require exploration and discussion.

### Oncology Nurse Practitioners

The oncology NP role is expanding and becoming increasingly important in meeting the needs of patients with cancer and in partnering with oncologists to meet patients' diverse and specialized needs (Bush & Watters, 2001; Young, 2005). Many cancers now are treated as chronic disease (Young). With more treatment options available, including many targeted therapies, patients are being treated for longer periods of time and, in fact, living longer. They will need to have ongoing care.

Oncology NPs are uniquely qualified to fill the gap between supply and demand in providing excellent care to the cancer population. In fact, most oncology NPs practiced as oncology nurses before returning to school to earn an advanced degree and must have a graduate degree either at the master's or doctoral level (ASCO, 2005; Yu, 2007). The increase in doctorate of nursing practice programs likely will produce many doctorally prepared oncology NPs and add to the pool of highly qualified individuals to help provide care for the cancer population. In addition, oncology NPs must be nationally certified by the American Academy of Nurse Practitioners or American Nurses Credentialing Center, and some hold an additional certification

by the Oncology Nursing Certification Corporation as advanced oncology certified NPs (AOCNP®s).

## Utilization of Advanced Oncology Nurse Practitioners

The oncology NP scope of practice includes performing comprehensive health assessments and physical examinations, making differential diagnoses, ordering and interpreting diagnostic and laboratory tests, performing invasive procedures such as bone marrow aspiration and biopsies, prescribing medications, ordering chemotherapy, and screening to prevent illness and other cancers (Bush & Watters, 2001; ONS, 2003; Rosenzweig, 2006; Trewhitt, 2001; Young, 2005).

Cancer survivors are becoming a large population that needs care now and in the future. Models of care exist and have proven beneficial not only for cancer survivors but for clinicians as well. One such clinic is managed successfully by an NP at the University of New Mexico. An initial patient visit with the NP lasts about 45 minutes, during which the patient is assessed for any cancer or treatment sequelae, and the patient's medical records are assimilated and given to the patient in the form of a care plan for future reference. Follow up is then performed annually (Pritham, Cureton, & Royce, 2009).

The use of oncology NPs to the fullest extent of their education and individual state practice acts will increase access to oncology care and provide a solution to the predicted shortage of oncologists. As cancer care moves toward individualized treatment options based on genetic and molecular testing, advanced oncology NPs will take a lead role in providing specialized care to patients. ONS asserts that advanced practice oncology nurses are ideally prepared to assume expanded roles in cancer genetics and genetic risk assessment and counseling (Tranin, Masny, & Jenkins, 2003). Oncology NPs have roles in cancer genetics that include direct care of patients and families, such as risk assessment and interpretation, education regarding testing and treatment options, and provision of psychosocial support (Holmes-Gobel, Triest-Robertson, & Vogel, 2009).

Experienced oncology NPs are experts in managing side effects related to cancer, chemotherapy, targeted therapies, and other cancer treatments. According to the *Oncology Nurse Practitioner Competencies* (ONS, 2007), identifying the relationship between normal physiology and

specific system alterations produced by cancer and cancer treatments is essential to positive outcomes. Pain control and ongoing management of that frequent symptom are critical components to providing high-quality care to patients with cancer. Advanced practice nurses (APNs) specializing in oncology are on the front lines of care and, thus, in a position to assess and intervene effectively and efficiently to manage pain. APNs must be change agents for how pain is managed by the entire team (Starck, Sherwood, & Adams-McNeill, 2000).

The expertise and specialized skills of oncology NPs facilitate expeditious referrals to the emergency department for oncologic emergencies such as spinal cord compression, brain metastasis, hypercalcemia, tumor lysis syndrome, and sepsis. As cancer survival intervals increase, early recognition of and prompt intervention for disease- and treatment-related oncologic complications are becoming more important than ever (Kaplan, 2006).

Prompt diagnosis and restaging are important parts of excellent care in oncology. Oncology NPs are educated and qualified to perform invasive procedures such as bone marrow biopsies and intrathecal chemotherapy administration for the purpose of diagnosing and restaging cancer. Bone marrow examination is essential for the diagnosis and classification of many nonhematologic and hematologic disorders. More NPs in various oncology settings are being trained and certified to perform bone marrow aspirations and biopsies. In addition to contributing to the efficiency of their work environments, oncology NPs can provide beneficial comprehensive care to patients (Trewhitt, 2001).

## Leadership Action Plan

According to Goldstein et al. (2008), one of the top solutions to address the oncology workforce shortage will be to increase the use of nonphysician practitioners. A large percentage of practicing oncologists currently work with oncology NPs, but many are not functioning in an advanced capacity. Oncology NPs should be active participants in refining the role. Role definition and expansion must be communicated to the oncology community as a viable solution to the projected shortage of oncologists. Oncology NPs have several ways to begin to refine and expand their individual roles, such as communicating with respective collaborating physicians. Awareness of the projected shortfall and

the solutions being considered by ASCO must be communicated, and collaborating physicians must be educated about the preparation and education of NPs. Other strategies follow.

- Create physician/NP models of practice in private practice settings, academic centers, and stand-alone cancer centers to act as prototypes. Offer those settings as exemplars for other practices.
- Work with ONS to develop a more standard job description for oncology NPs, ensuring the full use of highly educated, capable APNs.
- Be proactive in redefining the job description to include additional patient care responsibilities. Be assertive—each oncology NP is a highly educated clinician capable of managing patients with cancer.
- Expand the scope of practice to include seeing new patients with physician partners, performing bone marrow aspirations and biopsies, and administering intrathecal chemotherapy, as well as other procedures that may enhance cancer care.
- Join ASCO so that the organization has more representation from oncology NPs. Strength in numbers and voice creates unity and change, resulting in better care for patients.
- Contact ASCO's Workforce Advisory Group via e-mail at [workforce@asco.org](mailto:workforce@asco.org) to offer expertise as an oncology NP in doing further research regarding this proposed solution and the impact it may have on increasing patient access and improving patient outcomes.
- Form local, regional, and national oncology NP groups for the purpose of strengthening the core message of APNs in oncology. The specialized groups could establish a network of oncology NPs and their collaborating physicians for the purpose of facilitating standardization of the role within all oncology practices.

## Conclusion

Patients with cancer are a vulnerable and fragile population with distinct health-related issues. The care of such individuals is unique and requires the expertise of highly educated and skilled providers. Oncology NPs provide the experience, education, scientific knowledge, and qualifications to help care for this population alongside oncologists. The appropriate use of oncology NPs may be the key solution in dealing with the shortfall of oncologists projected for the future.

Oncology NPs will play an important role in the quality of oncology care now and in the future. The goal of all oncology NPs is to provide high-quality cancer care to all patients. Becoming leaders within oncology practice settings in addressing issues that affect patient care is a critical component in quality improvement, patient advocacy, and commitment to this special population of individuals. NPs' commitment to becoming full members of the interdisciplinary team will ensure that patients with cancer are cared for now and in the future by highly educated, caring advanced practice oncology nurses.

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## Leadership & Professional Development

This feature provides a platform for oncology nurses to illustrate the many ways that leadership may be realized and professional practice may transform cancer care. Possible submissions include, but are not limited to, overviews of projects, accounts of the application of leadership principles or theories to practice, and interviews with nurse leaders. Descriptions of activities, projects, or action plans that are ongoing or completed are welcome.

Manuscripts should clearly link the content to the impact on cancer care. Manuscripts should be six to eight double-spaced pages, exclusive of references and tables, and accompanied by a cover letter requesting consideration for this feature. For more information, contact Associate Editor Mary Ellen Smith Glasgow, PhD, RN, CS, at [maryellen.smith.glasgow@drexel.edu](mailto:maryellen.smith.glasgow@drexel.edu) or Associate Editor Judith K. Payne, PhD, RN, AOCN®, at [payne031@mc.duke.edu](mailto:payne031@mc.duke.edu).