

ONCOLOGY NURSING SOCIETY REPORT

Nursing-Sensitive Patient Outcomes— A White Paper

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Executive Summary

Cancer imposes a significant burden on patients, their families, and society, often affecting quality of life for years following initial diagnosis. Outcomes and quality of care for patients with cancer recently have come into question, emphasizing the need to understand the role of oncology nurses in ensuring the delivery of high-quality cancer care aimed at producing measurable and acceptable outcomes. This article describes patient outcomes that are amenable to nursing intervention (nursing-sensitive patient outcomes [NSPOs]) and the role of the Oncology Nursing Society (ONS) in ensuring patients' ability to receive care that enables them to achieve the best outcomes. A focus on improving NSPOs allows us to "drive quality oncology care through clinical practice, research, education, and policy" (ONS, 2004c).

Statement of the Issue

As a result of the chronic and potentially debilitating and life-threatening nature of the diagnosis and treatment of cancer, it is important to describe and measure the impact of nursing care on outcomes such as quality of life, symptom management, physical function, performance status, patient satisfaction, resource utilization, and cost. An emphasis on NSPOs has implications for nursing, the public, and policymakers for several reasons. First, because nursing interventions play a vital role in preventing or minimizing symptoms and complications during all phases of cancer care (positive outcomes sensitive to nursing care), nurses continue to be challenged to provide evidence of the extent (Committee on Quality of Health Care in America, Institute of Medicine [IOM], 2001; Hewitt & Simone, 1999) and quality of their contributions to patient outcomes. The demand for professional accountability regarding patient outcomes dictates that nurses are able to identify and document outcomes that are influenced by nursing care. Establishing nurses' role in patients' clinical course and outcomes underscores their importance as a vital and integral members of the multidisciplinary cancer care team.

Second, the public recognizes that the primary mission of oncology nurses is to deliver high-quality care to people with cancer and their families, yet we struggle with ways in which to measure our influence on patient outcomes. Establishing NSPOs for patients with cancer helps to provide tools for use in measuring the impact of nursing care on patients' lives. This enables us to more clearly articulate to consumers the value of our contribution to their care. Finally, establishing NSPOs is critical for policymakers. The quality of patient healthcare outcomes has become a priority for legislators, healthcare agencies, purchasers, regulators, insurers, providers, and consumers as decisions are being made regarding the quality of, access to, and reimbursement of healthcare services. Establishing the impact of nursing care on patient outcomes can justify the contribution of nurses to increasing patient comfort, physical function, and ability to cope and reducing death, disability, suffering, and the economic burden caused by cancer.

To this end, the Committee on Quality of Health Care in America, IOM (2001), advocated that we incorporate interventions and outcome measures into our daily work, making it possible to understand the extent to which nursing performance is consistent with quality care. Doing this allows us to examine and establish NSPOs, ensuring that optimal nursing care is being delivered to patients and reaffirming nurses' contributions to quality patient care. It is within this context that we examine NSPOs for ONS to provide a firm understanding of how oncology nurses enhance cancer care delivery to reduce suffering and promote quantity and quality of life.

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Introduction

Relevance of Nursing-Sensitive Patient Outcomes to the Oncology Nursing Society

The mission of ONS is to promote excellence in oncology nursing, continuing to challenge the quality of nursing care delivered to individuals affected by cancer. ONS's strategic goal is to drive quality oncology care through practice, research, education, and policy. IOM (1990) defined quality of care as the degree to which healthcare services increase the likelihood of desired health outcomes and are consistent with current professional knowledge, underscoring the idea of patient-centered and evidence-based outcomes. Quality of nursing care, the degree to which our services increase the likelihood of desired patient outcomes, is consistent with evidence-based nursing. An additional goal of ONS is to expand the public's awareness of nursing contributions to quality care. Thus, a focus on NSPOs is congruent with and driven by the mission and strategic plan of ONS. Using standards of nursing care in cancer, it is vital that ONS members articulate the value and relevance of NSPOs to overall cancer care and have the knowledge and skills to evaluate and document NSPOs in their practices.

Given the history of ONS initiatives regarding NSPOs, the time has come to push forward a strategic approach for examining, evaluating, and improving patient outcomes that are influenced by nursing interventions. ONS needs to take a leadership role in improving the implementation, evaluation, and documentation of NSPOs, including aggressive marketing of the contributions that nurses make to safe, high-quality cancer care. ONS also needs to take a leadership role in measuring priority outcomes, investigating the impact of our interventions on these outcomes, and monitoring the success of our efforts. ONS should then identify the gaps in our successes to guide future research of NSPOs.

Scope of the Issue

NSPOs for individuals with cancer must be considered within the context of quality health care and overall patient cancer care outcomes. We start with the general description of outcomes and then focus on NSPOs in oncology.

General Outcomes

The umbrella term "outcomes" covers a broad range of items. Donabedian (1980) defined outcomes as favorable or adverse changes in health states attributed to prior or concurrent care. Donabedian emphasized that although some outcomes are easily measured (e.g., death), others are more difficult to measure (e.g., patient attitudes and satisfaction). Regardless of measurement issues, however, Donabedian stressed that outcomes are the way in which we validate the effectiveness and quality of our care.

Classification of outcomes varies; outcome variables can be categorized as generic, broad-based indicators that pertain to all patients and healthcare providers (i.e., quality of care, access, cost, patient satisfaction, and utilization of service). More specific outcome indicators, such as return to work after stem cell transplant, comfort during palliative care, or even a good death, pertain to specialized populations. Both generic and specific indicators are applicable outcomes in the cancer population.

Specific outcomes of cancer care are represented by a broad array of patient- and disease-focused measurements that cross the diagnostic, treatment, and care trajectory. Patients' outcomes may be measured best in the context of *their* needs, given *their* diagnosis, treatment, and altered life expectations. Key patient-centered outcomes include health-related quality of life, symptom management, functional performance, social well-being, quality of death, coordination of care, patient satisfaction with care, psychological well-being, compliance and adherence, and knowledge. Quality-of-life patient-focused outcome end points (often called health-related quality of life) are particularly important when disease-focused end points (e.g., tumor enlargement) show minimal or modest differences, such as in advanced disease or for patients receiving palliative care.

An NSPO can be described as a patient state that is sensitive to nursing intervention when procedures for measurement can be defined (Jennings, Staggers, & Brosch, 1999; Maas, Johnson, & Moorhead, 1996). NSPOs represent the impact of nursing interventions on areas such as patients' symptom management, functional status, safety, quality of life, psychological distress, costs, and utilization of healthcare resources.

History of Outcomes

We briefly review past efforts in examining outcomes so that we can put the status of oncology NSPOs into context.

General and Nursing-Sensitive Patient Outcomes

The financial, political, and social pressures of the 1960s pushed the outcomes agenda forward with the introduction of Medicare. Healthcare delivery changed with the evolution of the managed care environment, and federal and third-party payers began to focus attention on increasing healthcare practitioners' accountability for patient outcomes. Researchers reported a wide variation in resource utilization, practice patterns, expenditures, and rates of hospitalization and procedures for patients with the same diagnoses and interventions (Committee on Quality of Health Care in America, IOM, 2001; Hewitt & Simone, 1999). As cost-containment activities became widespread to reduce this variability, concerns arose about how cost-driven alterations or reductions in reimbursable healthcare services affected the quality of patient care and patient outcomes, including an emphasis on patient safety (Kohn, Corrigan, & Donaldson, 1999). The need for evidence that interventions would maintain or improve patient outcomes and result in cost-savings became evident.

On a broader level, Ellwood (1988) emphasized that studying the outcomes of large numbers of patients, including standardized survival, disease status, quality of life, and cost information, could improve patient care and inform national policies. He indicated that rational choices about how our care affects patients' lives are needed and that these choices require increased reliance on standards, outcomes (e.g., functional and well-being data), centralized databases, and dissemination of results. The "outcomes movement" was described by Epstein (1990) as an effort to (a) address the effectiveness of interventions, (b) improve decision making by providers and patients, and (c) develop standards to guide, produce, and aid third-party payers in optimizing resource utilization.

Concomitantly, interest in patient outcomes developed in the discipline of nursing. The American Nurses Association

(ANA) initiated Nursing's Safety and Quality Initiative in 1994 to examine the impact of nursing structural and process variables on selected patient outcomes in acute care institutions. As a result of this work, the ANA identified acute care patient outcomes and indicators considered to be sensitive to nursing interventions (the Nursing Report Card for Acute Care Settings) and presented definitions that served as patient-focused outcome indicators (ANA, 1995). Outcomes for acute care settings and Agency for Healthcare Research and Quality (AHRQ) studies have examined NSPOs such as urinary tract infections, falls, medication errors, and decubiti, as well as variables that institutions typically must monitor to meet regulatory agency guidelines and are used as indicators of safety in acute care settings (ANA, 1995).

The National Quality Forum (2004) published a consensus report titled *National Voluntary Consensus Standards for Nursing Sensitive Care: An Annual Performance Measure Set* regarding quality and safety performance measures. An initial performance measure set of 15 indicators is included to tap performance of nursing personnel in acute care hospitals that relates to quality, patient safety, and a professional, safe work environment. These are patient outcomes, nursing interventions, and system level indicators. Other performance and safety sets are being developed by this group (Safe Practices for Healthcare, National Voluntary Consensus Standards for Hospital Care, and an initial performance measure set on smoking cessation).

As the focus on NSPOs was emerging in the literature, investigators began to consider classification systems. One example of this effort is the Nursing Outcomes Classification that evolved from researchers at the University of Iowa. Maas et al. (1996) updated the minimum data set and refocused the outcomes segment to include NSPOs. Daly, Maas, and Johnson (1997) and Johnson and Maas (1998) subsequently developed a nursing outcomes classification system derived from the literature and validated by researchers and clinicians. The Iowa Outcomes Project has developed an extensive classification system for nursing interventions as well as NSPOs. They are disseminating information about this program in an effort to improve the consistency of documenting nursing interventions and outcomes (Johnson, Maas, & Moorhead, 2000; Maas et al., 2004).

The National Center for Nursing Quality at the University of Kansas also maintains a national database of nursing quality indicators based on the successful implementation of a series of pilot studies conducted by the ANA. Hospitals in the American Nurses Credentialing Center's Magnet Hospital Program were part of the National Center for Nursing Quality database, collecting unit-level nursing-sensitive indicators such as nurse staffing, patient satisfaction, falls, and pressure ulcers. Identification of general NSPOs such as these formed the basis for interest in conceptual frameworks that guide efforts to link nursing interventions to NSPOs.

Conceptual Framework to Understand the Link Between Interventions and Nursing-Sensitive Patient Outcomes

The effectiveness of nursing care on patient outcomes is multidimensional and can be viewed from the provider's perspective (e.g., specific clinical outcomes), from the

administrator's perspective (e.g., costs or utilization), or from the patient's perspective (e.g., health status or satisfaction). In addition, outcomes may be encounter based or span the continuum of cancer care. A challenge in examining outcomes is to determine which outcomes are meaningful and accurate with evidence of their links to nursing interventions given variation in patient diagnoses, stage of disease, and setting in which care is delivered.

Frameworks to examine outcomes in nursing often are consistent with the Donabedian Model using structure, process, and outcome variables (ANA, 2002; Committee on Quality of Health Care in America, IOM, 2001; Donabedian, 1980; Doran, 2003; Hewitt & Simone, 1999; Jennings, 1995). However, structure and process variables do not always show a direct and consistent relationship to patient outcomes (Mitchell & Lang, 2004). Over time, a second-generation conceptual framework has been introduced in the nursing literature wherein the interrelationship of structure and process was scrutinized. Mitchell and Lang described the Quality Health Outcomes Model that was developed and proposed by the Nursing Expert Panel on Quality Health Care of the American Academy of Nursing (AAN). This model extends traditional work by suggesting reciprocal relationships of influence among structure, process, and outcome variables. Mitchell and Lang argued that interventions affect and are affected by system and client characteristics when influencing outcomes. The absence of a direct connection between interventions and outcomes suggests that no intervention acts directly and alone but rather is mediated by client and system characteristics.

In the Quality Health Outcomes Model, traditional structure (e.g., size, technical capacity, skill mix) and process variables have been included in the concept of system characteristics. Client (i.e., patient) characteristics address variation (i.e., health, demographic factors, and disease risk factors), and interventions may be direct or indirect. Outcomes include those traditionally identified (e.g., morbidity, mortality) with an added emphasis on those that capture the contribution of nursing interventions. Clinical and functional outcomes are integrated into the model, which proposes that outcome measures should be patient focused.

The Quality Health Outcomes Model expands on previous work and is a practical guide to the integration of clinical, social, and organizational outcomes for acute and community care; reflects the perspectives of consumers, providers, and administrators on elements of quality; and provides a good framework from which to examine outcomes. This model incorporates the essential components of nursing care, examining structures and processes that integrate functional, social, psychological, and physiologic aspects of patient care during illness or health promotion. Five types of outcomes evolve from the model as sensitive to nursing care. These are achievement of appropriate self-care, demonstration of health-promoting behaviors, health-related quality of life, perception of being well cared for, and symptom management. Although at this point the labels are somewhat different, the terminology is compatible with that of ONS NSPOs. This model is not in conflict with the perspective of the ONS activity and could serve to support it.

Using this model, an ONS outcomes project team was formed in 2003 that developed a statement on NSPOs, listed a first group of outcomes on which to focus, and developed a strategic plan (Irvine, Sidani, & Hall, 1998; Jennings et al., 1999;

Lang & Marek, 1990). Outcome categories were divided into patient-focused indicators (e.g., disease specific, holistic) and provider-focused indicators. Patient-focused indicators included diagnostic (disease specific) outcomes as well as a category of holistic indicators that go beyond a disease's boundaries and address a person's response to that disease. Examples include symptom status, functional health status, mental health status, role functioning, satisfaction, and ability to return to usual daily function. Provider-focused outcomes relate to provider proficiency and effectiveness, knowledge and skill, self-confidence, and satisfaction. The system or organizational focus is more global and evaluates measures of the organization or system effectiveness of which nursing is a part, including adverse events such as infections, nosocomial ulcers, falls, and other safety issues. System outcomes also evaluate resources such as healthcare service utilization and cost. Access to care, length of stay, readmission to a hospital or home care, clinic and homecare utilization, and hospice use also can be included in this category (Naylor et al., 2004; Urden, 1999).

The 2003 ONS project team selected symptoms as the main area of focus; the decision was made to include pain, fatigue, sleep disturbance, nausea and vomiting, diarrhea, constipation, mucositis, and infection. Return to usual function was another category considered basic to nursing care for patients with cancer. It was thought to be important to focus on symptoms as an area of concern because the management of symptoms is critical to the care of patients with cancer and crosses different diagnoses, stages of disease, and types of treatments and care settings. The 2003 ONS outcomes project team focused only on safety in their initial work, knowing that provider outcomes, utilization, and cost would be outcome indicators to consider with future work. This was the framework used to guide the list of examples of ONS outcomes.

Oncology-Focused Outcomes

A major focus on patient outcomes in the area of oncology began with the radiation therapy-focused Patterns of Care Study, funded by the National Cancer Institute (NCI) in the early 1970s. In 1986, the National Center for Health Services Research and Health Care Technology Assessment was formed as a precursor to the AHRQ Patient Outcomes Research Teams (PORTs) that arose to address concerns about variability in practice patterns. Of the first 14 PORT projects funded, only one addressed a cancer diagnosis, localized prostate cancer (AHRQ, 1998). Later, two PORT projects addressed prostate cancer and one focused on breast cancer. The main outcomes of interest in oncology were overall survival, disease-free survival, and tumor response; symptom management and health-related quality of life were initially of lesser concern. Interest in oncology outcomes has continued through organizations such as IOM (Hewitt & Simone, 1999), which completed a report on ensuring quality cancer care in 1999.

The Cancer Care Outcomes Research and Surveillance Consortium, funded by NCI in 2001, was established to support a prospective research project involving 10,000 patients with lung and colorectal cancer. The aim of this project was to address how characteristics of patients, providers, and systems affect what services patients receive for cancer management. NCI established its Outcomes Research Branch in cancer population studies in 2001 that focuses on developing outcomes measures, outcomes research, and clinical trials; assessing quality of care; and translating research into

practice (NCI Cancer Control & Population Sciences, 2005). The Outcomes Research Branch was charged with developing a national agenda in cancer outcomes measurement and analysis. The Dynamic Evidence in Cancer Control effort will feature evidence-based information on traditional and innovative end-point measures (e.g., functional status, quality of life, patient satisfaction, economic cost) that can be incorporated into a broad range of studies. Along with a growing interest in oncology outcomes at the national level, interest also has grown in examining health disparities and the impact of factors such as race, ethnicity, and income on patient outcomes. Unfortunately, little has been done to examine the relationship between NSPOs and health disparities.

A recent publication in the *Journal of the National Cancer Institute Monographs* (Lipscomb et al., 2004) provided a series of specific articles on cancer outcomes research, including health status and quality of life, economic outcomes, and psychological therapy. The purpose of this monograph was to identify contributions and challenges to bringing scientific information to cancer decision making and outcomes. Articles were comprehensive in the discussion of issues around outcomes research in cancer and will be important to future outcomes work in cancer care.

Oncology Nursing Society Activity With Nursing-Sensitive Patient Outcomes

In 1998, ONS held a state-of-the-science conference on NSPOs initiated by its Board of Directors and Research Committee. The purpose of this conference was to define NSPOs as they relate to cancer nursing care and to set direction for research and clinical practice in the promotion of evidence-based care. Presentations dealt with the continuum of care, intervention research, design and methods, organization and system issues, future directions, and conceptual models. Specific recommendations from the conference included distinguishing between efficacy and effectiveness research, building from theory and conceptual relationships in determining relevant outcomes, determining effective levels (dose) of nursing interventions that affect patient outcomes, and including multiple sources of measurement and analysis. A definitive list of oncology NSPOs was not identified, and no step-by-step plan for follow through and dissemination was developed. The consensus that evolved from this conference was that NSPOs are measurable effects of care that can be attributed to nurses and that work is needed to create a framework to guide efforts in NSPOs in the oncology population. Specific recommendations were made to the ONS Board of Directors, including commissioning a white paper and the consideration of funding research related to NSPOs.

An outcomes expert panel was convened by ONS in September 2000 to identify gaps and goals for outcomes research. These goals included identifying NSPOs in oncology, expanding outcomes research projects to include outcomes education, commissioning an instrument compendium, and creating links with clinical trial nurses to ensure the inclusion of NSPOs in clinical trials. Support for outcomes research by ONS has resulted in 11 projects supported by ONS Foundation grants (ONS, 2004d).

The 2000 ONS Outcomes Expert Panel also convened a focus group of representatives from ONS special interest groups at the ONS Congress in 2002. The 2001–2003 Research Agenda Team identified one of the top priorities as determining the

effectiveness of nursing care on patient outcomes, including symptom control, functional status, and access to and utilization of health services (ONS, 2003).

The majority of ONS's work on NSPOs in oncology has focused on symptoms—developing evidence-based and best practice guidelines regarding prevalent symptoms and side effects that result from cancer and its treatment. Although some of this work was not specifically designated as outcomes work, the science and expertise relate directly to outcomes. The ONS Advanced Practice Nurse (APN) Retreat Project Team in 2001–2002 took the lead for specialty groups regarding NSPOs by developing a statement and generating a list of NSPOs. In an effort to encourage APNs to become involved in outcomes research, this group developed guidelines for outcomes documentation, steps for conducting oncology outcomes research, and talking points for APNs to use regarding outcomes. Relevant categories of outcomes were developed by the group, including those related to patients and families, providers, fiscal structures, and symptoms. The group stressed that future directions in oncology NSPOs should include selection of tools to allow for the standardization of documentation for outcomes.

In 2003, the ONS Steering Council and the ONS Board funded an Outcomes Project Team to develop a statement on NSPOs and to provide a definition and list of NSPOs to be examined in depth as well as a five-year strategic plan. Based on this work, experts for selected outcomes in the field of oncology nursing research were commissioned to develop evidence-based summaries focusing on substantiating specific outcomes as nursing sensitive, and discussing conceptual and methodologic issues involved in measuring and affecting each outcome (see Figure 1 for outcome exemplars). Outcomes targeted for summaries were fatigue, nausea, vomiting and retching, prevention of infection, and return to usual function. The summary for each outcome includes a definition, references and links to integrated reviews, meta-analyses, clinical guidelines, a review of existing knowledge, and discussion regarding measurement issues reflecting the varying stages of existing knowledge for that outcome. Researchers and APNs then met at the 2004 APN Retreat to discuss these summaries and recommended that a list of interventions (including level of evidence) and suggestions for measures for each outcome be developed. A 2005 ONS Project Team has been convened by the Steering Council and Board of Directors to examine evidence-based oncology interventions for three of the NSPOs—fatigue; nausea, vomiting, and retching; and prevention of infection. The product of the 2005 Outcomes Project will be a set of interventions with levels of evidence available for each intervention. Recommendations of tools to measure effectiveness and where to find tools will be included. The products will be added to the Clinical Outcomes section of the ONS Evidence-Based Practice Resource Area on the ONS Web site.

A second set of evidence-based summaries was developed more recently to examine pain, dyspnea, insomnia, oral mucositis, nutritional status, peripheral neuropathy, and depression. Implications for education, practice, research, and policy should evolve from these documents. It is anticipated that the same process will be used after completion (i.e., that interventions will be linked to the summaries by researcher-practitioner expert teams). Continued updates of the outcomes and interventions evidence-based summaries will be essential as new knowledge

Symptom Control and Management

- Pain
- Peripheral neuropathy
- Fatigue
- Insomnia
- Nausea
- Constipation
- Anorexia
- Breathlessness
- Diarrhea
- Altered skin or mucous membrane
- Neutropenia

Functional Status

- Activities of daily living
- Instrumental activities of daily living
- Role functioning
- Activity tolerance
- Ability to carry out usual activities
- Nutritional status

Psychological Health Status

- Anxiety
- Depression
- Spiritual distress
- Coping

Economic (incorporate this category into all categories)

- Length of stay
- Unexpected readmissions
- Emergency room visits
- Out-of-pocket costs (family)
- Homecare visits
- Costs per day per episode

Figure 1. Outcome Exemplars From the Oncology Nursing Society Outcomes Project Team

Note. Based on information from Oncology Nursing Society, 2004a.

becomes available to continue to offer the best care to achieve the most desirable patient outcomes. The evidence-based summaries will serve as a centralized resource for NSPOs in oncology practice. It is important to note that in 2002, the ONS Research Agenda group included outcomes as priorities in research regarding health systems issues, policies, quality of care, and clinical outcomes. Symptom control, functional status, and access to and utilization of health services were identified as priority topics. In 2005, the focus is on health systems and quality-of-care issues specifically related to NSPOs.

The previous sections highlight the breadth of ONS's involvement with NSPOs. The Educational Blueprint for ONS (2004b) emphasized the priority for education of nurses related to NSPOs. *The Role of the Advanced Practice Nurse in Oncology Care* position statement discussed the importance of striving to “improve and document outcomes and provide evidence-based outcomes guided practice” (ONS, 2004e). Concern for patient outcomes and the identification of oncology nursing interventions that impact those outcomes are essential to achieving the ONS mission of “outcomes-driven oncology care” and have been integral components of numerous ONS activities.

The shortage of nurses and the inadequate staffing and mandatory overtime that have resulted from healthcare system restructuring raise concern for the safety of patients with cancer. The ONS position, *The Impact of the National Nursing Shortage*

on *Quality Cancer Care* (ONS, 2002a), acknowledged that systems should be developed in workplace environments to routinely monitor outcomes of patient care that are sensitive to nursing and nurse staffing, despite the shortage. This poses a challenge for bedside and administrative nurses, who may not have a great deal of experience in outcome measurement. Although many hospitals contribute generic nursing outcome data to state or national databases, virtually none are oncology specific. ONS recognizes the importance of delivering safe, high-quality nursing care that results in quality outcomes for patients (ONS, 2002b) while considering staffing limitations. Continued vigilance with NSPOs must occur, particularly as a result of the nursing shortage.

Internal and external assessments indicate that the time is right for ONS to move ahead to synthesize prior work in NSPOs, coordinate past team efforts, and make recommendations for the next steps in identifying, measuring, disseminating, and evaluating oncology NSPOs for its membership, as well as assisting consumers in understanding the value of NSPOs. In the previous sections, the value and mandate for nurses to be involved and concerned with NSPOs have been identified, outcomes in general and NSPOs specifically have been defined, and a conceptual framework in which NSPOs may be examined has been provided. We also reviewed the efforts of ONS to address issues relevant to NSPOs and to develop tools to support the use of NSPOs in practice. For the remainder of this article, we will focus on the role of ONS in NSPOs for clinical practice, research, education, and policy. Recommendations for future efforts also are included.

Implications of Oncology Nursing-Sensitive Patient Outcomes in Clinical Practice, Research, Education, and Policy Development

Clinical Practice

Research shows that nursing actions can significantly affect patient outcomes such as hygiene, nutrition and hydration, pressure sores and skin integrity, IV therapy, discharge planning, pain control, rehabilitation, elimination, length of stay, health status, physical dependence, dependence after discharge, readmission rates, complications, and use of services (Aiken, Clarke, & Sloan, 2002; Naylor & McCauley, 1999).

The ability to articulate the relationship between nursing interventions and patient outcomes such as these is imperative to ensure high-quality care in the face of rising healthcare costs, failure of patients to access appropriate care, and an increasing nursing shortage. Establishing links between nursing interventions and patient outcomes promotes the ONS goal of driving quality cancer care through education, research, leadership, and advocacy.

ONS subscribes to IOM's definition of quality of care: "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with professional knowledge" (IOM, 1990, p. 21). The ONS position, *Quality Cancer Care*, indicated that the quality of nursing care "has a direct impact on outcomes" and that NSPOs need to be examined across the cancer care continuum, including prevention, early detection and accurate diagnoses, treatment and symptom management, education, and supportive care that includes family members, rehabilitation, long-term follow-up of survivors, and palliative care at the end of life (ONS, 2002c). Outcomes related to various phases of the care continuum are detailed in Table 1. With this broad vision, efforts to date have focused mostly on patients during treatment and issues related to symptoms and quality of life.

Although nursing care is pivotal to the structure and process of cancer care in all settings, little attention has been paid to the topic of NSPOs as related to the quality of cancer care or to national quality improvement initiatives. ONS must take the lead to ensure that oncology NSPOs remain in the forefront of quality initiatives for clinical oncology practice. Lipscomb et al. (2004) pointed out that there are three prerequisites for outcomes aimed at improving cancer care delivery: (a) technically sound and relevant outcome measures on which to base decisions, (b) persuasive evidence about the effects of interventions on those outcomes with due attention to causal linkages among levels of outcomes, and (c) willingness and ability to translate findings into information that decision makers find understandable and compelling. ONS members can contribute to cancer care delivery through meeting these prerequisites for outcomes.

ONS should continue to ensure that scientific knowledge is translated to standards, guidelines, and policies that relate to quality outcomes of care in clinical practice. The selection of outcome(s) to measure depends on multiple considerations, including level of nursing practice (staff nurse or

Table 1. Core Nursing-Sensitive Patient Outcomes Across the Care Continuum

Continuum of Care	Symptoms	Physical Function	Role Function (Social)	Knowledge	Emotional Health	Quality of Life	Self-Care	Cost	Length of Stay	Use of Service
Prevention				X			X	X		X
Early detection and diagnosis	X			X	X	X	X	X		X
Initial treatment	X	X	X	X	X	X	X	X	X	X
Continuing care	X	X	X	X	X	X	X	X	X	X
Maintenance	X	X	X	X	X	X	X			X
Follow-up	X	X	X	X	X	X	X	X		X
Recurrence or progressive disease	X	X	X	X	X	X	X	X	X	X
Palliative and end-of-life care	X	X	X	X	X	X	X	X	X	X

APN), setting (hospital, clinic, office, home care), clinical context (episode of care, continuum of care), and population or case (cancer site, cancer stage) (Carroll & Fay, 1997; Patrick & Chiang, 2000). Major concerns for patients with cancer include management of disease- and treatment-related symptoms and improving or maintaining functional and performance status while receiving safe care. Oncology nurses can be accountable for promoting and upholding standards of care and guidelines and for tracking the results of their care to achieve quality outcomes. The use of information technology will be instrumental in helping nurses link interventions to patient outcomes. ONS, in collaboration with cancer centers, practice groups, and other care providers, needs to promote efforts in developing information technology that assists these efforts.

Nurses in clinical practice should be aware of the ONS activities regarding NSPOs, particularly that of the 2003 and 2005 Outcomes Projects and the 2004 APN Retreat. ONS should actively facilitate (using multiple approaches) the dissemination and implementation of tools to measure NSPOs and information about evidence-based interventions that positively affect patient outcomes for nurses in clinical practice. Building on the work accomplished by the 2004 APN Retreat and the Outcomes Project teams, ONS can enhance outcome efforts for measurement and documentation of NSPOs in clinical practice by encouraging additional outcome identification, continuing to support work to examine evidence-based interventions linked to those outcomes, and continuing to clarify the state of the knowledge regarding oncology NSPOs through mechanisms such as a consensus conference. The 2004 state-of-the-science conference on sleep-wake disturbances and the work of the 2004 APN Retreat focused on outcomes are excellent examples of how groups within ONS can work together to generate discussion, develop sets of interventions, and provide guidelines and resources for other areas within ONS.

ONS can take an active role in promoting the evaluation and development of practice guidelines and measures to evaluate NSPOs by supporting collaboration between practitioners and researchers. Work group activities need to be supported (such as ongoing updates of evidence-based summaries) to continue to accelerate efforts to document the outcomes of nursing practice. ONS should continue its support of project teams of experts in the field to select outcomes, review intervention studies for impact on NSPOs, and move to describe adaptability for practice. Once these sets of interventions are identified, they need to be translated and disseminated with the help of clinicians. For instance, outcome measures that are used in research may not be practical for use in the clinical setting. APNs and oncology researchers are uniquely qualified to lead the initiative of translating research to practice.

To enhance awareness and consideration of NSPOs at the clinical level, efforts such as mailings, ONS publications, and focus on NSPOs by ONS special interest groups and ONS chapters are needed to assist with translation and dissemination to practice. It is vital that nurses in clinical practice recognize their contribution to patient outcomes and that they are able to communicate regarding quality patient care to patients, advocates, policymakers, and decision makers. Information technology will be essential to this success. In summary, ONS needs to make bold statements about how and what oncology nurses contribute to improving patient outcomes and qual-

ity care, providing evidence-based support for the role of specialized oncology nurses in influencing patient outcomes. Throughout these efforts, ONS should ensure readability (by minimizing professional and scientific terminology) to improve consumers' comprehension of our role in quality care. By working with advocate groups who have close ties with ONS, ONS can take the lead in partnerships to speak of the value of NSPOs across the cancer care continuum, across settings, diagnoses, and stages of cancer.

Research

A major responsibility of oncology researchers is to continue to evaluate NSPOs and to frame clinical research in the context of outcomes. Results from randomized controlled trials indicate that nurses contribute to patient knowledge, health promotion, satisfaction, mental health (i.e., anxiety and depression), and numerous levels of symptom management (Devine, 2003; Devine & Westlake, 1995). Research in NSPOs must evaluate not only efficacy but also effectiveness in clinical care. Large databases that track NSPOs, interventions, and nurse variables such as staffing, patient acuity, and education will be needed to support this outcomes research. Research can provide support for initiatives aimed at increasing the type, number, and amount of reimbursable nursing services because of proof of positive outcomes. Numerous studies are available to support the retention of high numbers of qualified nursing staff in acute care settings; skill mixes of qualified RNs have been related to reductions in lengths of patients' stay, mortality, costs, and complications as well as increases in patient satisfaction, recovery rates, quality of life, and patient knowledge and compliance (Aiken et al., 2002; Blegen & Vaughn, 1998; Kovner, Jones, Zhan, Gergen, & Basu, 2002). Research also has demonstrated links between advanced practice nursing and positive health outcomes for various patient populations. Further work establishing these links in oncology practices will help to justify spending additional resources to maintain nurses in their current roles—a direct link to dealing with the nursing shortage.

Establishing the effectiveness of nursing interventions on patient outcomes requires that nursing inputs be specified (who gives what care, where and when, and how care is given) as well as patients' adherence to prescribed therapies. Thus, measurement must take place at the time(s) when the effects of the intervention (outcome) are expected to be evident and should use technology to support frequent and timely measurement. Hand-held computers and telephone monitoring systems are two such ways that patients can take an active role in monitoring NSPOs. Information technology that facilitates data capture is essential to measurement that links activities to outcomes.

One of the most problematic issues in outcomes research and evaluation is that of identifying relevant indicators to measure outcomes. It is difficult to attribute an outcome to a single factor, rather than the collaborative work between members of multiple disciplines, especially in the complex cancer care situation. Interdisciplinary teams should be used to identify NSPOs and select measures to evaluate interventions, with nursing in a leadership role.

Outcome indicators should be considered at each phase of the care continuum and across care transition points and groups of varying ethnicities and income. It also is imperative that measurement of and reporting on NSPOs be conducted

via easy and practical methods using information technology and innovative software that can be applied in a busy clinical setting. Some measures selected should be useful to benchmark NSPOs at national, regional, and local levels.

The majority of research in oncology outcomes has focused on affecting a particular symptom or for a group of patients with a particular disease type, such as breast cancer or prostate cancer. In addition, intervention studies typically have utilized smaller sample sizes. Large, multisite intervention studies using heterogeneous samples are needed to determine how the effectiveness of nursing interventions on NSPOs varies by disease characteristics such as tumor type and stage, as well as by patient characteristics such as age, gender, comorbidity, and ethnicity. The ONS Foundation could allocate funds for pilot and preliminary studies that could be used as supporting evidence for larger, externally funded studies. ONS also can support preparation for large intervention studies by employing the talents of its expert members and offering grant-writing workshops and mentors to help researchers develop and improve their ability to compete for grants at the federal level.

Knowledge and selection of appropriate outcome indicators and measures are critical to our success. Measurement often has focused on negative outcomes such as death, disability, discomfort, falls, errors, adverse events, decubiti, and infections. Positive outcomes from nursing interventions also need to be considered (i.e., health status, symptom management and control, functional ability, and health-related quality of life). ONS researchers and clinicians need to reach consensus regarding the most important core outcome indicators and develop those outcomes for use in clinical practice. All measures must be reliable, valid, and sensitive to the setting and patients' condition.

ONS project teams have convened to construct a list of interventions with associated levels of evidence for specific outcomes (fatigue, nausea, and prevention of infection). Guidance for the selection of measurement tools is a part of this initiative. These materials will become a part of the ONS Web site's Evidence-Based Practice Resource Area, which is being targeted toward practicing nurses. The first stage of outcomes covered fatigue; nausea, vomiting, and retching; prevention of infection; and return to usual function. The second stage of outcomes included nutritional status, pain, dyspnea, depression, sleep disturbance, mucositis, and peripheral neuropathy. This foundational work will provide the basis to conduct effectiveness studies to evaluate interventions as well as outcomes.

ONS should continue to support research aimed at clinical decision making by selecting appropriate outcome measures and determining cost effectiveness. There must be convincing findings so that policymakers and decision makers have clear guidance on the value of nursing care in outcomes and so that practitioners can identify clinically meaningful outcomes from nursing interventions. Policymakers and decision makers must be able to use nursing data to make decisions for healthcare systems.

It is important to consider the creation of an ONS Outcomes Center of Excellence that has the personnel and financial resources to support an infrastructure to guide research and to develop practice guidelines, educational programs, and policy initiatives on NSPOs. ONS could become an information clearinghouse for tools, measures, and sets of appropriate interventions and store and distribute relevant outcome

measures with guidelines for use in practice. A major step, however, will be to identify outcome indicators that easily can be added to administrative data sets, electronic medical records, and national data set item banks. This center also could house a national database and facilitate multisite studies on outcomes and effectiveness of interventions when external funds are received.

Finally, large databases such as the Online Analytical Statistical Information System; Surveillance, Epidemiology, and End Results; National Ambulatory Database; National Long-Term Care Database; National Hospice and Palliative Care Database; National Program of Cancer Registries; and National Cancer Database should be considered for inclusion of NSPOs on an aggregate basis. National and statewide registries can be used to identify general outcomes. Registries also may be helpful to enhance and supplement data sets when combined with sources that provide specific NSPO data at the patient or agency level, such as combining cancer registry data with insurance claim files to link nursing interventions to outcomes considering cost, utilization, and reimbursement issues. Integrating elements of NSPOs into electronic administrative databases is critical if oncology nurses are to become an integral part of the healthcare delivery system. Being a part of the administrative and national databases and having an electronic mechanism to capture NSPOs may be the most important keys to having NSPOs recognized by the healthcare system.

Education

A key to bridging the gap between research and practice related to outcomes is the inclusion of NSPOs in all levels of nursing education by creating a new generation of nursing students with a philosophical and training base in outcomes evaluation and research. An approach similar to that of the End-of-Life Nursing Education Consortium could be used. Guidelines for oncology curricula are needed for the undergraduate, master's, and doctoral level as well as for continuing education programs targeted toward clinicians. ONS can play a major role in organizing and defining curriculum content areas around oncology NSPOs for use by nurse educators. ONS is in an ideal position to summarize and provide this information for nurse educators and to ensure that oncology outcome items become a priority when educating nurses. Efforts can occur within ONS, but similar to previous guidelines on curriculum and standards, position statements can be developed and shared with educational institutions.

Outcomes evaluations should be a focus for education for practicing oncology nurses as well. As organizations continue to change and modify levels of clinical practice (such as clinical nurse leaders), outcomes evaluation should be part of the criteria used to evaluate nurses annually as they move up the clinical ladder.

ONS takes a primary role in continuing professional education for practicing oncology nurses. Past efforts have included providing continuing education credits with particular articles in the *Oncology Nursing Forum* and the *Clinical Journal of Oncology Nursing*, electronic and print newsletters, and local, regional, and national conferences such as the ONS Congress and Institutes of Learning. Future efforts need to be directed toward bringing clinicians and researchers together to translate evidence-based interventions into practice and to guide educational efforts in improving outcomes relevant to nursing care.

Policy Development

ONS should take a leading role in assisting other agencies to set priorities for research in linking nursing interventions to NSPOs. To accomplish this goal, ONS can work with leaders in cancer, nursing practice, and nursing research such as NCI, Susan G. Komen Breast Cancer Foundation, Department of Defense, American Cancer Society, National Institute of Aging, and ANA to set national priorities in oncology. ONS also can take an active role in developing patient guidelines for cancer care with organizations such as the National Comprehensive Cancer Network. In addition, ONS must remain aware of the work of other cancer scientists and organizations, such as the work of the nonprofit National Quality Forum, with breast cancer treatment and diagnosis, colorectal cancer treatment and diagnosis, and symptom management across the cancer continuum and end-of-life care. Cancer outcomes research should inform policy, which in turn should influence clinical care. As the National Quality Forum (2004) has worked to develop quality and safety performance measures, ONS needs to continue to be involved and provide leadership in the deliberations of this group to ensure that indicators for other settings are also considered. Commissioning an annual review and update on the state of the science in cancer NSPOs by experts in ONS would ensure that the organization remained in the forefront of the national outcomes agenda.

In addition, ONS should continue to participate with groups such as the National Committee for Quality Assurance and the Joint Commission on Accreditation of Healthcare Organizations to help determine performance measures relevant to oncology. Oncology nurses may need to request and justify their role as members on the working panel because they are not often prominent members of decision-making panels. ONS needs to continue to prioritize collaboration with nursing organizations at the federal and state level, payers (e.g., Medicare, Medicaid, the Veterans Administration), and private insurers (e.g., Blue Cross, Kaiser).

Group activities by organizations such as Leapfrog also need to be monitored because they are concerned with patient safety and rewarding higher-quality care standards. ONS can work with patient advocacy groups to help them assign value to NSPOs and discuss relevance to ensure quality patient care. Patients need to understand what quality outcomes are and, through the work of advocacy groups, begin to demand quality outcomes from nursing care in the centers where they receive their cancer care.

A National Institutes of Health Initiative Patient-Reported Outcomes Measurement Information System has been designed to develop key data banks for health symptom and health-related quality-of-life domains affected by chronic diseases. These will be designed for multiple delivery platforms. ONS should be aware and provide input to the core data elements for oncology. No integrated national surveillance system for cancer currently includes NSPOs.

Medical records, registries, population surveys, and existing administrative and clinical databases are the most common sources of outcome data. Nurses need to use a broad variety of databases and data sources to capture NSPOs; however, most contain few data elements from nurses. Nurses generally use patients, family members, and providers as sources of data.

Medical records are rich sources of clinical information and include histories, chief complaints and

symptoms, physical examination findings and changes over time, laboratory and procedure results, medication history, discharge summaries, and sometimes minute-by-minute clinical accounts of a patient's progress that all can be used as sources of data reflecting NSPOs. Despite these advantages, patients and their family members continue to be the most direct source of data for NSPOs. Administrative databases allow patient outcomes to be tracked longitudinally over multiple time points because these systems permit linkage via medical record registry data, social security, death records, or other identification number for each episode of care. Nursing-relevant items often are limited in these administrative databases. New initiatives for personal electronic health records, such as those developed by the Veterans Administration, can foster connectivity between data from patients and providers to allow us to monitor nurse-relevant patient outcomes.

Finally, ONS needs to be the leading voice for oncology practitioners at the national levels when NSPOs are discussed with ANA, the American Medical Association, AAN, American Society of Clinical Oncology, Medicare, and other appropriate professional groups.

In the previous sections, we have detailed the history of outcomes and NSPOs, provided a guiding framework with which to examine oncology NSPOs, and suggested specific ways in which ONS can take the lead and become involved in NSPOs in clinical practice, research, education, and policy. We end this article with recommendations for increasing ONS's role in oncology NSPOs.

Recommendations for Nursing-Sensitive Patient Outcomes

General Recommendations

- A center of excellence on NSPOs at ONS could consolidate all efforts for clinical practice, research, education, and policy. Such a center could serve as a national clearinghouse for patient outcomes related to cancer care. This center also could maintain an instrument bank, sets of guidelines, resource lists, and experts in each outcome area. If multisite clinical trials on NSPOs are conducted, this center could form a consortium of research investigators and serve as the coordinating center.
- Core outcome indicators for each major cancer diagnosis at each stage of disease and across settings need to be determined, as well as key measures.
- NSPOs must be considered across the care continuum and care transition points (i.e., from screening and early detection through long-term and palliative care), as well as across groups with varying ethnicity and income.
- For patients with advanced cancer and those undergoing palliative care, outcomes need to be determined that are not related to disease progression but rather symptom relief, improved or maintained function, health-related quality of life, quality of death, and quality of care.
- As advances in treatment continue, outcomes for survivors need to be considered. Long-term symptoms and late effects following cancer-related treatment and psychosocial issues following recovery should be considered.
- More systematic literature reviews that summarize current knowledge and evidence regarding NSPOs, including inte-

grative reviews and meta-analyses, are needed, and these reviews need to be updated every five years.

- Cancer-specific evidence-based intervention guidelines for areas such as peripheral neuropathy and immunocompromised patients need to continue to be developed. Functional status or physical performance also is clinically significant for patients with cancer as they go through diagnosis and treatment. Guidelines for assessing outcomes should be developed.
- Positive indicators of outcomes from nursing care (not just adverse events) need to be identified that could include concepts such as personal growth after cancer diagnosis and treatment.
- A well-developed marketing plan is needed to highlight the impact of oncology nurses on NSPOs and to raise the public's awareness of nursing's contribution to outcomes. This plan needs to target the general public, advocacy groups, physician groups, policymakers, decision makers, and payers.
- Recommendations regarding the choice, measurement, and adaptation into practice of NSPOs should be made for each level of nursing service (e.g., staff, educators, administrators, APNs).

Clinical Practice

- Efforts in assisting with outcome selection and development of evidence-based practice guidelines should be expanded by bringing researchers and clinicians together to select core measures and appropriate, practice-relevant tools to evaluate NSPOs. ONS should continue to support research aimed at linking clinical practice to interventions and outcomes as researchers continue to translate findings and test practice-relevant outcome models in practice.
- ONS should assist nurses in adopting, implementing, and documenting interventions to positively affect patients' lives through efforts to raise awareness of NSPOs, suggest outcome indicators, and provide funds to support the evaluation of nursing care. ONS should support information technology grants to develop programs aimed at outcome evaluation, such as electronic databases and charting, that integrate NSPOs in the plan of care.
- ONS should expand its support of project teams to conduct evidence-based reviews for a variety of relevant outcomes to support NSPOs.
- NSPOs in oncology must be evaluated at the patient, system, and population level.

Research

- Intervention studies need to clearly document the effectiveness and clinical significance of nursing interventions on patient outcomes, and studies should be conducted on a large level to establish effectiveness and increase generalizability across patient populations. Large-scale intervention studies require significant funding, of which ONS can be a part for the pilot and preliminary work.
- ONS should take leadership in identifying a core set of outcome measures for use in clinical practice and encourage the healthcare industry and researchers to evaluate these measures.
- We need to partner with specialists in healthcare information technology to develop systems to link outcomes with care processes so that we can involve patients in recording outcomes through various technologic measures such as personal digital assistants (PDAs), computers (touch

screen), Internet, cellular phones, and other emerging technologies that can be completed in waiting rooms and scored easily by providers and patients. ONS should develop platform-independent phone, Web, and PDA assessments that can document NSPOs and assist patients in learning how to use and gain information. This approach can assist with data capture despite shortages in staff and limited time for documentation.

- ONS needs to take a leadership role in adding NSPOs to databases such as Surveillance, Epidemiology, and End Results; NCI; and clinical trials cooperation groups. IOM's National Cancer Policy Board suggests that we link cancer registry data with medical records, insurance claims, and administration. NSPOs must be a part of the data that are included in these registries.
- ONS should collaborate with informaticists and biostatisticians to improve techniques for capturing, analyzing, and presenting outcome measures. New methodologic and analytic approaches may be required.
- Dissemination of research into clinical practice should be active rather than passive, diffusing research findings to highly motivated professionals through journal articles and conferences. Establishing integration into practice awards for nurses who try to adapt NSPOs to their own practices and sponsoring local chapter projects could improve these efforts.
- ONS could fund outcomes studies using existing databases to evaluate the way in which patient outcomes are recorded and linked to nursing interventions.

Education

- ONS should take a leadership role in developing, offering, and supporting continuing professional education regarding NSPOs for practicing nurses.
- Nursing education should be structured to help nurses become skilled in outcome evaluation and articulation of the value of NSPOs. We need to ensure the inclusion of content relative to the value of outcomes and cost effectiveness in curricula from undergraduate to professional education offerings.
- ONS needs to take leadership in identifying the curriculum content on NSPOs that is needed in cancer care and develop outlines similar to those from End-of-Life Nursing Education Consortium for nurses at the undergraduate and graduate level. These then can be shared with educational institutions.

Policy

- ONS should be the collective voice of oncology nurses, researchers, and educators to inform policymakers of the effect of NSPOs on patients, outcomes, cost, and resource utilization. Promoting the role of the nurse as a core resource in all outcomes for safe, quality care should be a high priority.
- At the state and local level, ONS should provide guidance to nurses in ways to approach and effectively communicate information regarding NSPOs with government representatives such as legislators and regulators. Fact sheets, preprinted letters, electronic bulletins regarding upcoming oncologic legislation, and lists of representatives by district on the ONS Web site are several ways to facilitate such communication.

- To continue the progress of clinical activity and policy formation, ONS needs to actively participate with other cancer-related groups in activities such as guideline development (e.g., National Comprehensive Cancer Network, American Society of Clinical Oncology).
- ONS needs to work with ANA and AAN to help determine and influence policy that promotes a focus on NSPOs and quality care. We can help leaders articulate the value of NSPOs to safe quality cancer care and the contribution that nurses make to healthcare delivery.
- Cost of cancer care and money saved as a result of nursing care should be determined from existing and planned studies, and this evidence should be used as fact sheets with legislators, regulators, advocacy groups, and payers.
- When advising policy decisions, nurses need to use a broad variety of databases and data sources to capture NSPOs (i.e., administrative databases, clinical databases, medical records, state and national cancer registries). One way to accomplish this is by becoming familiar with meta-analyses and integrated reviews in the Evidence-Based Resource Area of the ONS Web site.
- Rapid and effective strategies are needed to disseminate the results of oncology outcomes research to major stakeholders, including consumers, providers, advocacy groups, insurers, and policymakers, to drive change and innovation.
- ONS should maintain a Web site with articles and resources on outcomes and measures supported by the Outcomes Center of Excellence.
- Patient and advocacy groups need to be aware of the value of NSPOs to the outcomes of their cancer care so that patients understand the importance of NSPOs to overall end results and quality care.

Future Challenges and Opportunities

A number of challenges regarding NSPOs await ONS; however, given its past leadership role in considering outcomes, ONS also has many opportunities to affect oncology NSPOs. Practitioners must recognize that there is a nursing shortage and a critical need for improved methods for assessing comorbidity and other risks, severity of illness, stage of disease, access to care, and NSPOs. Nurses in clinical practice have little time and resources to focus on outcomes, and staff members available to provide quality care are limited. The data that nurses collect as outcomes are not captured in the system data collection networks in many cancer settings. The lack of collaborative efforts in information technology is also a deterrent to the ability to efficiently and effectively document NSPOs to support

our contributions to cancer care. As information technology improves, and as cancer outcomes become a more routine part of clinical care, nurses at all levels will need to document results of interventions on NSPOs. Information technology should enable nurses to take outcome indicators into user-friendly formats and make them required components of patient care. These outcomes then can be documented as a routine part of care so that nursing has evidence of the contribution of nurses to quality care despite the nursing shortage. If patient outcomes are improved, new standards of care may evolve and use of the data will be critical to quality cancer care.

Summary

NSPOs should be integrated into the strategic plan of the practice, education, research, and policy efforts of ONS. The strategic plan on outcomes developed by ONS serves an important foundation for recommending actions for ONS related to oncology NSPOs. This document provides guidance for the importance of measuring outcomes and the definition of NSPOs. The importance of NSPOs to patients, nurses, advocates, and the healthcare system is critical. This document proposes a structure and context for ONS to use in developing a plan to move forward—to generate leadership nationally to help oncology nurses provide high-quality, resourceful, and cost-effective care through focusing on NSPOs. Mechanisms are suggested that need to be developed to help other constituents, payers, legislators, and consumers understand the contribution that oncology nurses make to patient outcomes. Research efforts will need to continue to document the effectiveness of interventions on patient outcomes research. Partnerships between practitioners, researchers, and educators are essential in translating and testing these intervention-outcome models in practice for all patients with cancer if we are to see improvement in quality patient care. Quality and safe care is the mission for ONS, one that can be markedly enhanced with a focus on NSPOs.

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