



# Advancing Practice and Research: Creating Evidence-Based Summaries on Measuring Nursing-Sensitive Patient Outcomes

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As pressure to improve the quality and safety of healthcare delivery continues, debates have ensued regarding which measures are sensitive to or affected by individual providers, technology, and healthcare systems (Doran, 2003). Outcomes must be identified uniformly and systematically to provide patients and consumers the information they need to make informed choices about their care. Healthcare professionals are obligated to collect patient outcomes data to identify problems with care, evaluate interventions, and improve the quality of care (Donabedian, 1966).

Oncology nurses must document patient outcomes data. In 2003, the Oncology Nursing Society (ONS) Steering Council recognized the unique challenges of identifying, measuring, and ultimately improving outcomes for patients with cancer. The ONS Oncology Nursing-Sensitive Outcomes (ONSO) Project Team (see Figure 1) began the important work of describing nursing-sensitive outcomes, defined as “the results directly attributable to nursing care and the provision of nursing services or achieved in collaboration with other healthcare providers” (ONSO Project Team, 2003).

The product of this initial work was a classification scheme for outcomes that are impacted by oncology nurses. Categories included

- Symptom experience
- Functional status
- Safety (preventable adverse events)
- Psychological distress
- Economic.

To reach consensus on key oncology nursing-sensitive outcomes and to develop a five-year plan to educate oncology nurses, the healthcare community, and the public about oncology nursing-sensitive outcomes. A major component of this task is expected to necessitate a commissioned literature review of oncology nursing-sensitive outcomes research. An additional outcome will be the identification of gaps in oncology nursing-sensitive outcomes research and to identify outcomes research goals.

## FIGURE 1. ONCOLOGY NURSING-SENSITIVE OUTCOMES PROJECT TEAM CHARGE

Exemplars for each category were identified and included 30 potential outcomes. The project team then launched a plan to develop an online resource as a part of the ONS Evidence-Based Practice Resource Center on the Internet. The purpose of the project was to create evidence-based summaries as a centralized resource regarding the measurement of specific oncology nursing-sensitive outcomes. The summaries focus on evidence supporting nursing-sensitive outcomes and measurement tools for the assessment of each outcome.

From the initial list of outcomes, fatigue, nausea and vomiting, return to usual function, and prevention of infection were selected for the next phase of the ONSO Project Team’s initiatives. Experts in the four outcomes were commissioned to author a summary of each outcome. Following a standardized format for each summary, the authors were asked to

- Provide a clear definition for the outcome.
- Identify and review published integrated reviews and meta-analyses that provide evidence of nursing’s effect on the selected outcome.
- Identify and review published clinical practice guidelines related to the outcome.
- Identify and critique available instruments or tools for measurement.
- Discuss the gaps in published research and measurement techniques.
- Review, synthesize, and critique the evidence identifying the impact of oncology nursing interventions, and provide recommendations for practice, future research, and educational activities.

## The Process

As literature reviews were conducted, authors used papers classified as systematic

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reviews or meta-analyses to provide the highest level of evidence available regarding the selected outcomes. The goal was to produce documents that might aid clinicians in applying sound evidence in their clinical practice, guide scientists in the identification of new research questions and measurement selection, and provide an additional resource for oncology nurse educators to assist in maintaining competencies for their staffs.

This phase of the project was launched officially in September 2003 by telephone conference among the authors and volunteer members of the ONSO Project Team and was facilitated by ONS Research Team staff members. During the initial six months, a series of conference calls (and countless e-mail correspondence) clarified the level of evidence allowed for review and the format for each summary. The author teams were able to assist each other with common concerns, such as how to locate measurement tools, and suggest resources to assist the inquiries. Drafts of each summary were shared with the authors to standardize the format and submitted in December 2003 for review by the ONSO Project Team.

Each summary includes a comprehensive definition of the outcome, supported by references. The search strategy is described, and the reviews and meta-analyses included in the summary are cited, with Web-based links to abstracts or documents (when available). Links or references to published practice guidelines and standards of care also are provided. The tools available to measure the outcome are summarized and critiqued, and special attention is paid to the timing of measurement and impact of different clinical settings. The summary of evidence regarding nursing's impact on the outcome is provided, followed by the identified gaps in the research base. Specific recommendations are provided for practice, education, and research. Finally, other online resources are provided to guide interested readers for further study.

The ONSO Project Team served as a peer-review group for the initial products, and recommendations were incorporated into subsequent drafts. After consulting with the ONSO Project Team, the authors sought further review of the summaries by clinical experts prior to public release. The 2004 ONS/ONS Foundation Advanced Practice Nurse (APN) Retreat Project Team had chosen "Nursing-Sensitive Outcomes: Measuring Our Impact" as the meeting focus. Both the summary authors and the APN Retreat Team identified the synergy in joining forces; expert review by APNs would satisfy the authors' need for clinical review, and the authors and APNs could consider the impact of the summaries on clinical practice,

education, and future research. In March 2004, 40 master's-prepared oncology nurses who were functioning in advanced practice (clinical nurse specialists, nurse practitioners, or nurses in advanced practice blended roles) met with the summary authors in Tucson, AZ, to critique the summaries and brainstorm future directions.

## The Lessons

Several issues arose during the development of the summaries. First, the authors had to determine the limits of the literature review. Should only the studies examining patients with cancer be included? To truly capture *oncology nurse*-sensitive outcomes, should studies from nononcology settings be included? For the authors of prevention of infection and return to usual function, the initial yield of papers specific to patients with cancer was poor and necessitated the inclusion of reviews and meta-analyses of informative patient populations, but not specifically patients with cancer. Evidence specific to patients with cancer was marked specially in the summaries to aid identification. In contrast, the fatigue authors initially found 47 summary papers related to cancer fatigue and narrowed their inclusion criteria to the past five years, including only papers with clearly identified search strategies. This led to a team discussion of the date range of papers and the level of evidence for inclusion. To provide the most recent summaries of evidence, only papers published from 2000–2003 were included. After an initial literature review by the study authors, papers that were germane but not designated as "systematic reviews" were added, provided a clear search strategy was described.

The authors also struggled with summarizing the available measurement tools. Although tools were abundant for some outcomes (e.g., fatigue), others had underdeveloped knowledge bases for measurement (e.g., prevention of infection, return to usual function). The group decided that a current summary of measurement tools, regardless of the stage of development, was an important contribution and could lead to future instrument development or refinement. For the outcomes with abundant tools, the intent was to critique the measures for timing, different patient populations, and different locations of care. This shift, however, revealed that inadequate evidence existed to make recommendations based on published research.

The APN Retreat provided a dynamic process for discussion of the summaries. The first recommendation from the APN group was to describe the documents as evidence-based summaries (prior versions had been described

as outcomes templates). In addition, APNs believed that an expansion of the search terms to use literature that had not been included in systematic reviews or meta-analyses would be more helpful to practitioners. As the APNs joined work groups specific to outcomes, the discussions became lively. For example, the fatigue work group suggested pilot research in several cancer care facilities to determine the simplicity of fatigue measurement tools for routine clinical practice. The literature describing measurement of and interventions for return to usual function was determined as underdeveloped, and the working group recommended the development of a conceptual analysis to clarify the definition of this outcome so that exploratory research on the outcome could commence. All of the work groups had concerns that the available measures and the intervention evaluations were scarce in vulnerable populations, such as patients in rural areas, older adults, and children. The detailed critiques improved the final summaries for the four outcomes and will inform the process for future summaries.

## The Future

Having completed reviews by the ONSO Project Team and the participants of the APN Retreat, the four summaries now are available on the ONS Web site at [www.ons.org/evidence](http://www.ons.org/evidence). The summaries are designed for nurses from clinical, educational, research, and management settings to easily access information on the four outcomes. When possible, the summaries provide Web site addresses to guide readers directly to source material.

The ONS Research Team and the ONSO Project Team intend to advance the understanding of nursing interventions that directly affect outcomes. To that end, the ONS Steering Council has approved the project's next phase, which will pair researchers and expert clinicians to review the literature in a broader fashion. The dyads will identify nursing interventions for the outcomes and the level of evidence available to support adoption of those interventions. The goal is to develop a list of potential interventions that can be categorized, as in other evidence-based applications, as beneficial, likely to be beneficial, trade-off between benefits and harms, unknown effectiveness, unlikely to be beneficial, and likely to be ineffective or harmful (Jones, 2002).

The four summary authors provided the ONS Steering Council and other stakeholders with the knowledge gaps in these outcome areas. The lists of gaps will prove helpful in constructing future ONS research priorities, including targeted calls for research proposals

in important areas. Across all four outcomes, the authors believed that more information is needed in the measurement of outcomes, specifically the timing of measurement, and the implications for vulnerable populations.

Although the future of the four completed summaries is focused on applying the findings for use by clinicians and researchers, the ONSO Project Team also is expanding in scope. Funding for six additional evidence-based summaries—dyspnea, depression, mucositis, nutritional status, pain, and peripheral neuropathy—has been obtained through the ONS Foundation PRISM (Priority Symptom Management) project and remaining ONSO project funds. These summaries will be complete and available on the ONS Web site in 2005.

The ONSO Project Team also is developing a white paper to summarize key issues regarding oncology nursing-sensitive patient outcomes and the specific patient outcomes that oncology nursing impacts. This should provide practical recommendations for oncology nursing practice, education, research, and policy, and it may lead to an ONS position statement on oncology nursing-sensitive patient outcomes. The document will have

the data necessary for ONS to build on its existing focus on outcomes and, ultimately, provide ONS members with tangible steps to increase the awareness, measurement, and improvement of oncology nursing-sensitive outcomes. The closing session of the Eighth National Conference on Cancer Nursing Research Conference scheduled for February 3–5, 2005, will address oncology nursing-sensitive patient outcomes (presented by Barbara Given, PhD, RN, FAAN, and Susan Beck, PhD, APRN, FAAN).

The increased emphasis on provider accountability in health care poses unique challenges for oncology nursing practice across care settings. As cancer shifts along the illness continuum toward a chronic care model, eradication of tumor burden no longer is the only outcome of interest to patients and insurers. The evidence-based summaries described in this article provide oncology nurses with the current available evidence on four important outcomes for patients with cancer. The gaps in knowledge identified in these summaries will stimulate action by ONS leaders as they plan future research and education activities. Those involved in this process hope that oncology nurses will

find these summaries useful as they educate patients and staff, conduct research, and, ultimately, provide nursing care to patients with cancer.

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