Introduction:
Shaping Oncology Nursing Care for the Future

Christine Miaskowski, RN, PhD, FAAN, June Eilers, PhD, APRN, BC, and Marylin J. Dodd, RN, PhD, FAAN

A quiet revolution is occurring in oncology practice, one that is being fueled by a philosophical shift in nurses' approach to managing patients with cancer. This shift removes the singular focus on curative or life-prolonging treatment and replaces it with the recognition that continuous symptom management and pain control, integrated from the time of diagnosis through all stages of cancer, are essential to improving patient management and optimizing patient outcomes. Unfortunately, the reluctance on the part of many clinicians to abandon the "either/or" approach to oncology treatment (Whedon, 2002) continues to pervade practice environments. In June 2001, the Institute of Medicine's (IOM's) National Cancer Policy Board issued a report (IOM, 2001) on the numerous challenges that continue to limit the integration of supportive and curative care, highlighting the paucity of clinical data, lack of adequate compensation, and absence of institutional practices and policies. Importantly, the IOM report emphasized that improvements in the development and delivery of symptomatic control, among other aspects of supportive care, had not kept pace with other medical advances in cancer management and cited that guidelines and quality indicators remained in the embryonic stages of development. Until these and other challenges are overcome, endless opportunities to optimize quality of life and reduce morbidity for patients with cancer are being lost.

Nowhere is the integration of supportive care into clinical practice more important than in oncology nursing. Nurses interact with patients before treatment is initiated and throughout the course of care. These interactions provide a strategic opportunity for oncology nurses to promote novel approaches that most likely are to reduce treatment-related morbidities and complications and improve quality of life. Strides are being made in this regard in mucositis (a cancer treatment-related inflammation of the oropharyngeal and gastrointestinal mucosa often associated with ulceration and functional disruption) and in chronic pain. Although "cures" for these problems have not yet been realized, a growing emphasis on the mechanisms underlying each may shed light on previously uncharted management strategies. Importantly, the premise of such a mechanism-based approach to diagnosis and treatment does not supercede the overall clinical goal of alleviating the global morbid experience but rather provides a more rational means by which it can be achieved (Woolf & Max, 2001).

A major challenge posed by mechanism-based assessment and subsequent treatment is that healthcare professionals do not yet possess advanced tools that discern the exact mechanisms that are operating to produce specific symptoms in individual patients. Healthcare professionals commonly assume that specific diseases will produce symptoms (e.g., pain) by a single mechanism and that patients can be characterized accordingly; however, a single etiologic factor more likely produces pain by diverse mechanisms that act alone, sequentially, or concurrently (Woolf & Max, 2001). For example, as discussed by Dodd in her article in this supplement (see p. 5), recent work by Sonis (2003) suggested that mucositis is a multifactorial process that involves a complex interaction of biologic events occurring simultaneously in multiple cells and tissues at all levels. These events might be driven ultimately by genetic polymorphisms (e.g., the expression of transcription factors that, in turn, influence cytokine expression) that account, at least in part, for distinct manifestations among individual patients at various phases of the disease process. Similarly, data slowly are revealing the neurobiologic mechanisms that generate and maintain chronic pain and the means by which the central nervous system changes to modulate nociceptive responses that initiate the pain cascade.

Fortunately, researchers are starting to illuminate the ways that currently available diagnostic tools can be applied within this mechanism-based paradigm. For example, Eilers' article (see p. 13) discusses the relevance of symptom clusters in managing treatment-related effects, such as those associated with mucositis and chronic pain. Defined as three or more concurrent (or synergistic) symptoms that are related but not necessarily of the same etiology (Dodd, Miaskowski, & Paul, 2001), symptom clusters may predict future morbidity and therefore can be used to target interventions. For oral mucositis specifically, nursing interventions might begin with an assessment that identifies symptom clusters, followed by use of the Oral Assessment Guide to define specific oral cavity changes and guide subsequent care. A critical aspect of such

Christine Miaskowski, RN, PhD, FAAN, is a professor and chair of the Department of Physiological Nursing at the University of California, San Francisco (UCSF). She also is an advisor to Cephalon, Janssen Pharmaceuticals, Ligand Pharmaceuticals, Merck & Co., Inc., and Purdue Pharma, LP. June Eilers, PhD, APRN, BC, is a clinical nurse researcher and clinical nurse specialist at Nebraska Health System in Omaha. Marylin J. Dodd, RN, PhD, FAAN, is an associate dean in the School of Nursing, a professor in the Department of Physiological Nursing, and director of the Center for Symptom Management in the School of Nursing, all at UCSF.