Highly specialized care is required for critically ill patients with cancer, but continuity of care equally is important to their survival when they are admitted to the critical care setting. The use of oncology nurses as liaisons to critical care nurses may help ensure the continuity of care and reduce rates of morbidity and mortality. This article provides a framework for collaborative consultation between oncology and critical care nurses.

Literature Review

Survival rates for critically ill patients with cancer have improved dramatically in recent years, as evidenced by a 20% decrease in the overall mortality rate between 1978 and 1998 (Thiery et al., 2005). This may be attributed to improved technology, earlier detection of complications requiring critical care intervention, and better screening of patients who would improve with such intervention (Thiery et al.). Technologic advances serve as a benefit to the continuity of patient care in such instances, but they also can become a detriment. Technologic advances may influence how nurses are trained, omitting some essential elements of nursing practice.

The focus of training nurses new to critical care frequently is driven by technical procedures, and preceptors may find it “difficult to articulate and convey the substantive values of the practice” (Day, 2005, p. 435). McKnight (2006) reported that critical care nurses in her study believed that taking time away from patient care to read was unethical. Additionally, Egerod (2006) noted that evidence-based practice is a challenge for all nurses and a distinctive challenge for critical care nurses. This may be a result of an inability to adequately apply evidence-based practice to the present patient population because of factors such as changes in the level of consciousness from delirium or sedation. McKnight suggested the urgent need for continuing education, especially information that is obtained from print and electronic sources that may be more readily available to nurses with limited time.

The human component of health care sometimes is overshadowed by the constant stressors present when caring for critically ill patients. Staffing shortages, working long hours in highly stressful situations, and the practice of mandatory overtime add to the constant demand to master new technology. Such stressors can contribute to burnout and may cause nurses to leave specialty areas or even the nursing profession. Hughes (2004) listed several work-related health risks associated with...
overwork and burnout, including increased risk for breast cancer, hypertension, coronary artery disease, reproductive issues, and substance abuse. Burnout reduction strategies, including education, emotional support, and the promotion of a healthy work place, can have positive effects on individuals as well as society (Shirey, 2006).

Because perceptions of inadequate support can contribute to burnout, the importance of reciprocal support, which is available through collaborative relationships, cannot be overlooked. Farnell and Dawson (2006) noted that if nurses who were new to critical care felt that they received support from others, they were able to reciprocate by providing support to patients and their families. Stress is a barrier to staff productivity in that it perpetuates a continued state of weakness on a unit. Like burnout, stress can be reduced and productivity enhanced through the establishment of support systems (AbuAlRub, 2004).

One such support system is the presence of a nurse liaison who can promote continuity of care for critically ill patients with cancer and their families. Oncology nurses are ideal for the role because of the unique knowledge and skill set they possess. Additionally, advanced practice nurses (APNs) can contribute further because their graduate education provides preparation for a consultant role. As consultants, APNs provide knowledge-enhancing education and are credible assets to improving patient care (Dawson & McEwen, 2005). APNs have been shown to help improve overall quality of care and decrease hospital length of stay (Chaboyer, Gillespie, Foster, & Kendall, 2005).

Chaboyer et al. (2005) described nurse liaisons as a conduit between units. In the role, oncology nurses can supplement the extensive knowledge base of critical care nurses with oncology-specific information. Oncology nurses possess expertise in the areas of symptom management, recognition and treatment of oncologic emergencies, and the management of patients experiencing severe myelosuppression. They also are experienced in end-of-life care. In the event of a transfer to the critical care setting, oncology nurses often have established long-term relationships with patients and their families and can serve as valuable liaisons. Enhanced communication can alleviate undo anxiety, promote comfort, and enhance trust building, which collectively establishes continuity of care for critically ill patients with cancer.

Case Study

M.L., a 45-year-old male patient, presented to the emergency department with the following symptoms: dyspnea, worsening fatigue over a two-month period, chest palpitations, and unexplained bruising. Laboratory studies revealed a complete blood count with an elevated white blood cell count (more than 100,000/mcl), profound anemia with a hemoglobin level of 7.2 g/dl, and a platelet count of 43,000/mcl. The patient was suspected of having leukemia, so a bone marrow biopsy was performed. The patient’s condition abruptly worsened after the biopsy, and he developed cardiovascular and respiratory complications that resulted in his transfer to the CCU.

Twenty-four hours after his transfer, the bone marrow report confirmed acute myelogenous leukemia and the oncologist ordered induction chemotherapy to include cytarabine.

Because of acute changes in M.L.’s cardiovascular and respiratory status, the CCU staff shifted their focus from treatment of the underlying oncology issue to treatment of the cardiovascular and respiratory complications. Once the patient was stabilized, the IV team administered the chemotherapy; however, further delay in the administration of cytarabine resulted from a question regarding the premedication orders. Chemotherapy ultimately was administered following clarification, but, within the hour, M.L. went into fatal cardiac arrest.

M.L. died 12 hours after chemotherapy was ordered as a result of complications from the virulent leukemia, despite the efforts of his clinicians. The primary focus of M.L.’s care in the CCU was his cardiovascular and pulmonary decline. The CCU’s concern regarding the safety of administering chemotherapy to a medically unstable patient resulted in delayed treatment of his underlying malignancy, which was, in fact, the primary cause of his condition. The immediate administration of the chemotherapy to treat the underlying malignancy may have averted the patient’s death, but that cannot be determined with certainty.

M.L.’s case illustrates how proper education and resources for clinicians caring for critically ill patients with cancer are essential for positive outcomes. An understanding of the nature of the disease, treatment, and potential complications can minimize patient morbidity and mortality. After M.L.’s death, the medical center initiated educational efforts to inform staff about the specific needs of critically ill patients with cancer in the critical care setting and the resources available for the staff in such situations. A nursing grand rounds conference was organized as a means to facilitate staff education. It provided a nonthreatening, nonjudgmental atmosphere for sharing ideas and information, improving communication, and understanding the roles of oncology and critical care nurses.

Recommendations

Five recommendations are proposed for promoting continuity of care among critically ill patients with cancer.

**Relationship building:** The need for relationship building between oncology and critical care nurses should be a priority so that trust is established. The use of case studies, such as the one presented here, may lead to discussion and recognition of the

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Understanding of the nature of the disease, treatment, and potential complications can minimize patient morbidity and mortality.
importance of collaboration. The prioritization of patients’ needs in the oncology setting may differ from the usual prioritization in the critical care setting. Collaboration and improved prioritization can result in improved outcomes. Once the need for collaboration is recognized, both specialties can proceed to the second step of dialogue.

**Collaborative relationships:** Critical care and oncology nurses must dialogue to establish mutual goals and work toward a plan of care, drawing on the clinical strengths and knowledge of both. This may be accomplished via face-to-face meetings or teleconferences among selected staff from each unit. Working collaboratively, both specialties can offer suggestions for the care of critically ill patients with cancer. Collaborative relationships can be beneficial to nurses because managers may miss the opportunity to provide adequate support for staff (Medland, Howard-Ruben, & Whitaker, 2004). Interaction would foster enhanced communication among patients, family members, and healthcare professionals. In addition, a collaborative approach can build relationships and encourage knowledge sharing, ultimately resulting in improved care by nurses in both specialties and assuring continuity of care.

**Continuing education:** Oncology and critical care nurses should collaborate in the provision of continuing education classes for their peers. Hurst and Keith (2005) reported on a successful example at Banner Good Samaritan Medical Center in Phoenix, AZ, in which oncology and critical care APNs developed an integrated IV catheter and dressing change tool to be shared by oncology and critical care nursing units. As a result, the program led to the improvement of patient care, met the learning needs of nurses in both specialty areas, and formed a foundation to build relationships (Hurst & Keith).

**Scheduled reviews:** Establishing a way for the staff of both units to evaluate the process and outcomes of their collaborative efforts is needed. Evaluation is essential to reveal the strengths and shortcomings of the union and to determine the outcomes of the intended goals. A quarterly review of achieved outcomes by representatives of both units may realize that aim.

**Enhanced baccalaureate curriculum:** A final recommendation, supported by Nibert (2000), proposes enhancement of the current baccalaureate nursing curriculum to incorporate additional critical care and oncology nursing experiences. That concept could prove useful as a recruitment strategy for students interested in critical care or oncology following graduation. Ultimately nursing resources would increase and improve.

**Conclusion**

Formalizing collaborative relationships between oncology and critical care nurses can result in improved quality and continuity of care for critically ill patients with cancer and their families. Patients may experience rapid physiologic changes, but conditions can be reversed with prompt and insightful intervention. Critical care nurses should have oncology resources available to them 24 hours per day, seven days per week. Likewise, the expertise of critical care nurses should be available to oncology nurses in crisis situations. The sharing of essential oncology-specific knowledge can result in reduced morbidity and mortality as well as psychological distress for patients, families, and nursing staff. Ultimately, the mutual goal should be for recovering patients to be transferred back to the familiar setting of the medical oncology unit and eventually discharged.

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**References**


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