

Learning From Disaster: Patient Safety and the Role of Oncology Nurses

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The widely publicized chemotherapy error that led to a journalist's death in 1994 caused great sorrow among oncology nurses and catalyzed two decades' worth of effort to improve patient safety. The situation taught oncology nurses, oncologists, and oncology pharmacists that interdisciplinary protocols and interprofessional communication are essential to preserving patients' well-being. These patient safety efforts, along with parallel efforts to improve occupational safety in oncology, have made real progress in 20 years, but much remains to be done.



At a Glance

- The Oncology Nursing Society has played a key role in the creation of guidelines and protocols to prevent patient safety errors.
- Guidelines and protocols are vital in the protection of oncology nurses' own safety.
- Workplace structures and processes—not just individual nurses' behavior—must be addressed to promote safety.

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When the Oncology Nursing Society (ONS) was almost exactly half its present age, in November 1994, a *Boston Globe* health columnist named Betsy Lehman was admitted to the Dana-Farber Cancer Institute in Boston, Massachusetts, to receive an investigational regimen for breast cancer. Her treatment ended in disaster. In one of the most notorious patient safety failures of modern times, Lehman was given severe overdoses of cyclophosphamide during a four-day period. On each of those four days, nurses, physicians, and pharmacists at Dana-Farber failed to notice that Lehman was receiving doses four times greater than the intended amount

(Aspden, Wolcott, Bootman, & Cronenwett, 2007). Lehman died of cyclophosphamide toxicity on December 3, 1994.

The Dana-Farber errors, together with the international patient safety movement they helped spawn, have profoundly shaped oncology nursing during the past two decades. Although ONS began publishing chemotherapy administration guidelines as early as 1984 (ONS, 1984), the widespread publicity surrounding Lehman's death gave new urgency to the project of standardizing and improving safety protocols.

In the immediate aftermath of the Dana-Farber incident, oncology nurses may have feared that they would be distrusted

by hospital administrators, and that they would be forced to work robotically according to safety checklists over which they had no control. At many institutions, however, something close to the opposite happened—oncology nurses' voices were taken more seriously, not less. Healthcare organizations have recognized that nurses, because they are at the bedside more than any other profession, are in a unique position to detect, analyze, and correct systemic threats to the safety of patients with cancer. In 1995, nurses, physicians, and pharmacists at Dana-Farber worked collaboratively to devise new safety protocols, with the recognition that only strong interprofessional communication and respect can prevent lethal errors (Conway et al., 2006). Similar safety collaborations were created in the mid-1990s at Yale-New Haven Hospital in Connecticut, the Children's Hospital of Philadelphia in Pennsylvania, and dozens of other institutions—in some cases, with the assistance of the Institute for Healthcare Improvement (Fischer, Alfano, Knopf, Donovan, & Beaulieu, 1996; Womer et al., 2002).

The culmination of this interprofessional safety work was the creation of the American Society of Clinical Oncology (ASCO)/ONS Chemotherapy Administration Safety Standards, which were published in 2009 and revised in 2012 and 2013 (Jacobson et al., 2009, 2012; Neuss et al., 2013). The standards are still relatively young, and institutions continue to learn how best to use them in the service of patient safety. For example, in the Allegheny Health Network in Pennsylvania, a multidisciplinary committee painstakingly translated the ASCO/ONS recommendations into new hospital-level standards of practice (Vioral & Kennihan, 2012). Meanwhile, at Yale-New Haven