

# Failure to Rescue in the Surgical Oncology Population: Implications for Nursing and Quality Improvement

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**Purpose/Objectives:** To analyze the frequency, type, and correlates of postoperative complications for surgical patients with cancer to illustrate practical application of the failure to rescue concept in oncology nursing practice.

**Design:** Secondary analysis of inpatient claims.

**Setting:** Data obtained from the Pennsylvania Health Care Cost Containment Council were linked with data from the Pennsylvania Cancer Registry.

**Sample:** 24,618 patients with solid tumors hospitalized for tumor-directed surgery in 164 acute care hospitals from 1998–1999.

**Methods:** Frequency distributions examined the incidence of each complication, the proportion of patients who died with the complication, and complication frequency by tumor type. Chi-square tests compared the frequency of complications at an early stage and evidence-based management may assist nurses in patient rescue and, ultimately, improve quality of care.

**Main Research Variables:** 30-day mortality, postoperative complications, and tumor type.

**Findings:** The most frequent complication in the sample was gastrointestinal bleeding (13.2%); however, 37.1% of patients who died had respiratory compromise as a complication. Admission through the emergency department was significantly associated with experiencing a complication (71.9% versus 43.9%).

**Conclusions:** Treatable but serious postoperative complications are frequent and can be fatal in the surgical oncology population. Complication frequency and fatality vary significantly by cancer type.

**Implications for Nursing:** The complications studied are detectable by nurses and can be managed successfully with timely intervention. Recognition of complications at an early stage and evidence-based management may assist nurses in patient rescue and, ultimately, improve quality of care.

## Key Points . . .

- Failure to rescue—defined as death following a postoperative complication—is increasingly studied as a quality-of-care measure.
- Because understanding and application of failure to rescue currently are limited in oncology settings, examination of the frequency and fatality of complications can aid nurses in detection and management.
- Serious postoperative complications, including gastrointestinal bleeding, fluid and electrolyte disturbances, and respiratory compromise, occurred in about 50% of the studied population and were associated with high mortality rates. Patients admitted via the emergency department had higher rates of studied complications.

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Increasing interest in healthcare quality improvement has focused on the prevention or management of complications for patients undergoing surgery (Berwick, Calkins, McCannon, & Hackbarth, 2006; Leape et al., 1991). Failure to rescue, defined as a death among surgical inpatients with treatable serious complications, is one outcome measure frequently studied to examine quality of care in hospitalized patients (National Quality Forum, 2004; Silber, Williams, Krakauer, & Schwartz, 1992). Failure to rescue is strongly linked to nursing care; when nurses identify abnormal findings signifying a complication during patient assessment, they often are the first line of intervention to rescue the