

Preoperative Variables and Postoperative Complications Associated with Outpatient Mortality

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BACKGROUND

30-day mortality following outpatient surgery is unexpected & undesired. We investigated the preoperative risk factors, operative variables, & postoperative complications associated with 30-day death after outpatient surgery.

METHODS

1. Collected preoperative variables, intraoperative variables, postoperative complications, and 30-day mortality rates from the 2005-18 NSQIP database
2. Analyzed used chi-square, t-tests, and forward selection logistic regression models
3. Determined most significant contributors to mortality preoperatively and postoperatively.
4. Age was analyzed separately

Top 20 Most Important Predictors of 30-Day Outpatient Mortality in Forward Selection Logistic Regression Models

Step Numbers	Model (1): Preoperative Predictors Only	Cumulative C-Index	Model (2): Preoperative Variables + Postoperative Complications	Cumulative C-Index
1-4	Disseminated cancer, functional status, ASA class, age	0.835	Cardiac complication ≥1 complication, disseminated cancer, pulmonary complications	0.766
5-8	Ascites, surgical specialty, HCT, weight loss	0.852	Age, functional health status, ascites, ASA class	0.901
9-12	WBC, albumin, dyspnea, INR	0.861	Stroke, weight loss, surgical specialty, WBC	0.909
13-16	Dialysis, sodium, work RVU, wound infection	0.865	HCT, alkaline phosphatase, renal complications, infectious complications	0.914
17-20	Alkaline phosphatase, creatinine, sex, body mass index	0.869	Sodium, UTI, dialysis, body mass index	0.915

RESULTS

- The 30-day mortality remained stable @ 0.06% over time
- Most significant preoperative predictors of mortality: disseminated cancer, lower functional health status, higher ASA class, advanced age
- Most significant postoperative complications predictive of mortality: cardiac, pulmonary, stroke, renal
- Postoperative complications conferred a greater risk for mortality than preoperative variables
- Mortality risk especially increases after age 80

CONCLUSION

Patients > 80 y/o with disseminated cancer, lower health status, or higher ASA class are associated with higher rates of death 30 days after outpatient surgery.