

Increased Mortality with Delayed Surgery for Medically Fit Hip Fracture Patients

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Purpose: Empirical evidence points to the benefits of early surgery, while some health services research fails to associate delayed surgery and death as the “reason for delay” is unknown. Capitalizing on the availability of the reason for delay data, in a prospective cohort, we aimed to identify the risk of death with delay of surgery for patients who are otherwise fit.

Methods: Prospective data from hip fracture patients operated between June 2013 and October 2016 in 22 hospitals included: baseline information, preoperative data (including reason for delay at 24 + 48 hours), postoperative process, and outcome measures (including complications and death). Univariate regression analysis was reported as odd ratios and confidence intervals.

Results: There were 7188 patients, mean age 83 years. 90% of patients received surgery within 48 hour of first admission to a hospital (72%-95%). Regression analysis focusing on in-hospital mortality as an outcome identified a “protective association” from death with younger age, women, and patients mobilized on preoperative day (POD) 1. In contrast, surgery after 48 hours for all patients (patients delayed because of fitness and because of administrative reasons) was associated with an approximate 63% increased risk of death, dropping slightly to 60% for patients who were delayed for administrative reason alone.

Conclusion: Analysis of prospectively collected perioperative information on a large cohort identifies factors associated with risk of in-hospital mortality. Univariate regression showed a 65% decreased risk of death through mobilization on POD 1 with a 60% increased risk of death when medically fit patients are delayed for administrative reasons.

POSTER ABSTRACTS

Odds Ratio Estimates				
Effect	Point Estimate	95% Wald Confidence Limits		
Surg >48	1.626	1.174	2.252	~60% increased risk of death with delay>48
agegr 60s vs 90s	0.104	0.050	0.215	Younger = lower risk
agegr 70s vs 90s	0.225	0.147	0.345	Younger = lower risk
agegr 80s vs 90s	0.474	0.369	0.610	Younger = lower risk
Sex (f)	0.576	0.451	0.736	Women = lower risk
preadmit_home	0.951	0.742	1.220	Preadmit Living arr = ns
mob_1	0.359	0.280	0.460	MOB POD_1 = lower risk
w_e	0.984	0.759	1.275	Weekend = ns
Effect	Point Estimate	95% Wald Confidence Limits		
adminOR_48	1.597	0.958	2.660	~60% increased risk of death when delay = admin at 48h

The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.