

## SUPPLEMENTAL (ONLINE-ONLY) MATERIAL

### Appendix E1. Variables Included in Multivariable Hazard Modeling

#### *Patient*

Demographic:	Age (y), sex, weight (kg), height (cm), body surface area (m <sup>2</sup> ), body mass index (kg·m <sup>-2</sup> )
Symptoms:	New York Heart Association functional class (I-IV), emergency operation
Ventricular dysfunction:	Prior myocardial infarction
Aortic valve pathology:	Aortic valve regurgitation
Aortic valve function/size:	Orifice area (cm <sup>2</sup> ), mean gradient (mmHg), peak gradient (mmHg)
Aortic valve etiology:	Degenerative
Other pathology:	Tricuspid valve regurgitation, mitral valve regurgitation
Coronary anatomy:	Left main trunk disease (% stenosis), left anterior descending coronary artery system disease (maximum % stenosis), right coronary artery system disease (maximum % stenosis), left circumflex coronary artery system disease (maximum % stenosis)

Other cardiac comorbidity: History of cardiac disease, complete heart block or pacer,  
ventricular arrhythmia, heart failure

Left atrium: Diameter (cm), volume (mL), volume index ( $\text{mL}\cdot\text{m}^{-2}$ )

Noncardiac comorbidity: Treated diabetes, history of peripheral arterial disease,  
smoking, carotid disease, hypertension, popliteal disease,  
creatinine ( $\text{mg}\cdot\text{dL}^{-1}$ ), blood urea nitrogen ( $\text{mg}\cdot\text{dL}^{-1}$ ),  
cholesterol ( $\text{mg}\cdot\text{dL}^{-1}$ ), bilirubin ( $\text{mg}\cdot\text{dL}^{-1}$ ), creatinine  
clearance, glomerular filtration rate, hematocrit (%)

Experience: Date of operation (years since 1/1/1982)

Left ventricle

variables: Structure: Inner diameter in diastole (cm), inner diameter in  
systole (cm), diastolic volume (mL), systolic volume (mL),  
diastolic volume index ( $\text{mL}\cdot\text{m}^{-2}$ ), systolic volume index  
( $\text{mL}\cdot\text{m}^{-2}$ )

Function: Fractional shortening, ejection fraction (%), relative  
wall thickness (wall stress)

Mass: Mass (g), mass index ( $\text{g}\cdot\text{m}^{-2}$ ), posterior wall thickness  
(cm), septal thickness (cm)

Medication: On lipid-lowering drug (preoperative, at discharge)

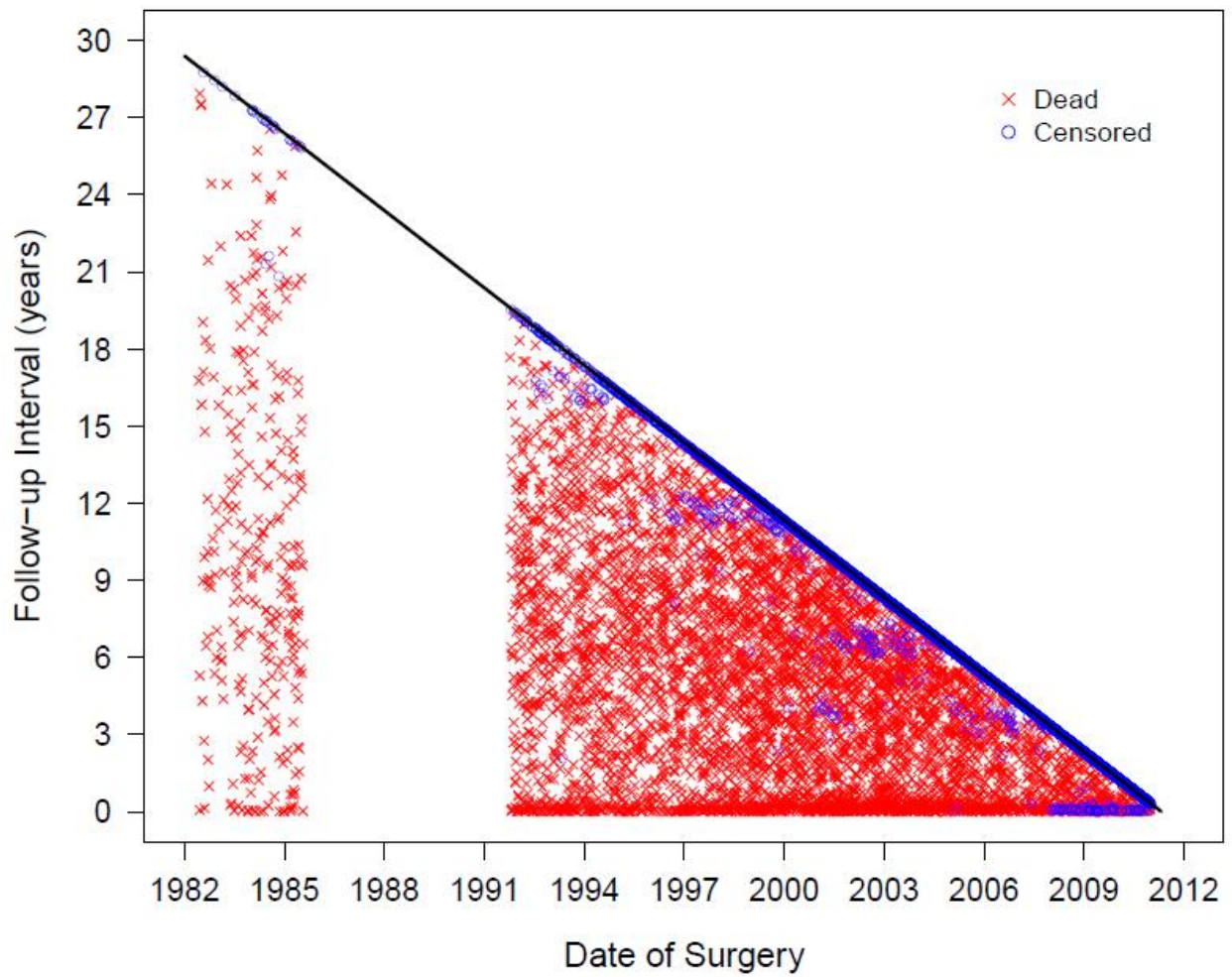
***AV prosthesis***

***variables:*** Valve size, Z-value

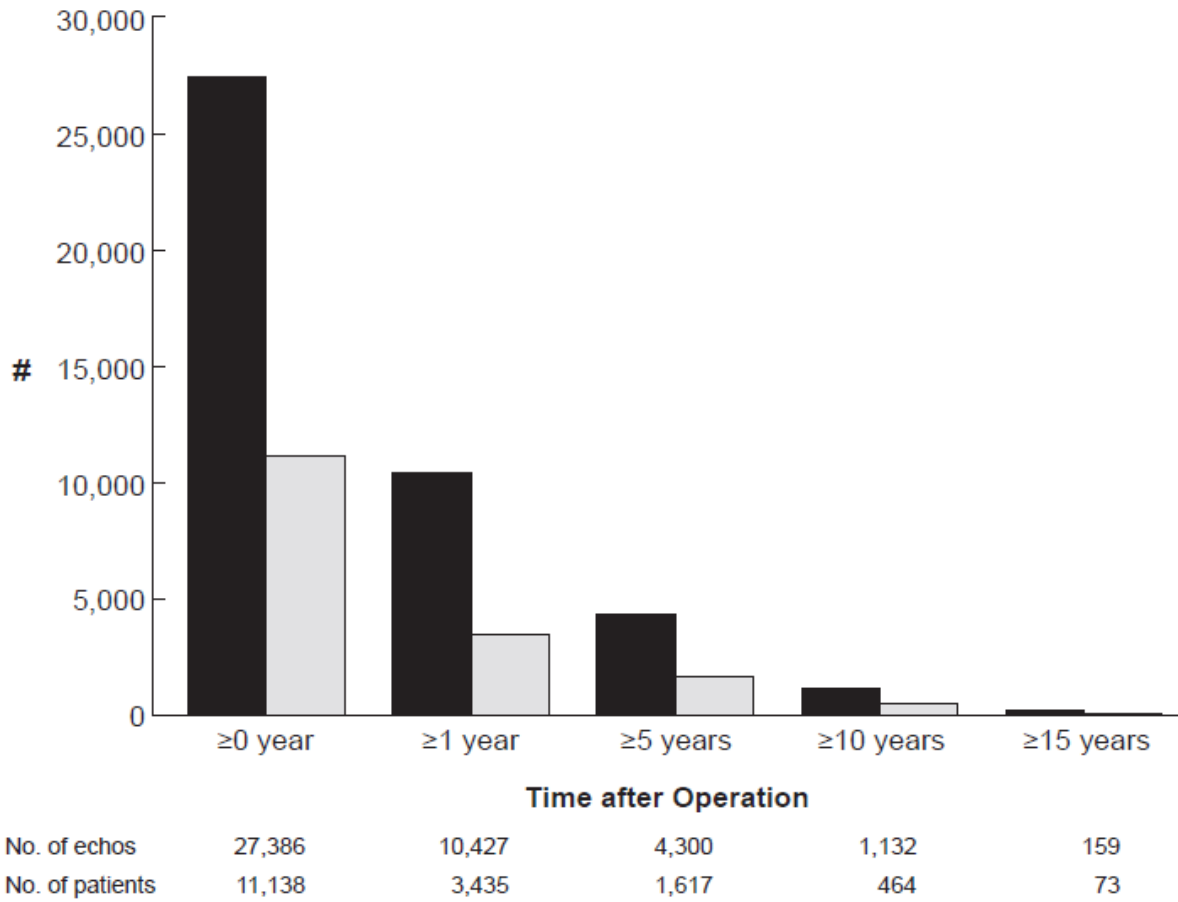
***Intraoperative:***

Other procedure: Internal thoracic artery graft used, coronary artery bypass grafting

Support: Aortic clamp time (min), cardiopulmonary bypass time (min)



**Figure E1.** Goodness of follow-up, depicted by follow-up intervals for the censored patients (blue circles) and time to death (red crosses), ordered by date of surgery.



**Figure E2.** Number of patients with postoperative echocardiograms available at and beyond various time points, and number of echocardiograms available for analysis.