

APPENDIX

Appendix 1:

Table 1: Multivariable model for AKI with predictors ranked in order of variation explained ^a

Characteristic	N = 16,362	P-value
Adjusted β (95% CI)		
Age, per 5 years	0.012 (0.008, 0.016)	< 0.001
Diabetes	0.048 (0.035, 0.061)	< 0.001
<u>IABP</u>		
None	Ref	
Preoperative	0.074 (-0.017, 0.165)	0.097
During CPB / Post-CPB / Postoperative	0.238 (0.072, 0.403)	0.011
Hb preoperative <100g/L	0.086 (0.057, 0.115)	< 0.001
CPB time, per 10 minutes	0.004 (0.002, 0.006)	0.001
Infective endocarditis	0.093 (0.019, 0.167)	0.020
<u>Procedure type</u>		
CABG only	Ref	
CABG + valvular surgery	0.030 (0.013, 0.046)	0.003
Valvular surgery only	0.021 (0.004, 0.038)	0.021
Hb <70g/L during CBP	0.028 (-0.002, 0.059)	0.068
Sex	-0.015 (-0.036, 0.007)	0.151
Dialysis post-operatively	-0.048 (-0.193, 0.098)	0.470
Urgent, emergency or salvage operation	0.015 (-0.010, 0.039)	0.207
Severe neurological disease	0.049 (0.028, 0.070)	0.001
Peripheral vascular disease	0.016 (-0.004, 0.036)	0.099
<u>Left ventricular ejection fraction</u>		
Normal (>60%)	Ref	
Mild (46-60%)	0.009 (-0.019, 0.036)	0.491
Moderate (30-45%)	0.012 (-0.015, 0.039)	0.341
Severe (<30%)	0.006 (-0.030, 0.042)	0.708
Critical pre-operative state	0.044 (-0.014, 0.103)	0.119
Cardiogenic shock at time of procedure	0.013 (-0.067, 0.093)	0.711
Congestive heart failure	-0.010 (-0.028, 0.008)	0.233

Previous cardiac surgery	-0.004 (-0.018, 0.010)	0.547
Time spent at low flow < 1.6L/min/m ²	0.000 (-0.007, 0.007)	0.944

IABP: intra-aortic balloon pump; CPB: cardiopulmonary bypass; Hb: Haemoglobin; CABG: coronary artery bypass graft.

a 1. Outcome variable is log (post-op SCr/ pre-op SCr) with range [-3.3, 3.5]. 2. This is the model used to estimate the effect of time spent at low perfusion flow on AKI: therefore, predictors included are those that were found to be confounders of the association. Variables are listed in order of proportion of variation explained by that variable, not explained by the others. 3. Model has been weighted with propensity weights and model errors adjusted for clustering by hospital.

Appendix 2:

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