

Figure S1: Unadjusted odds (and associated 95% confidence intervals) of in-hospital death up to 3 months postoperatively by day of operation.

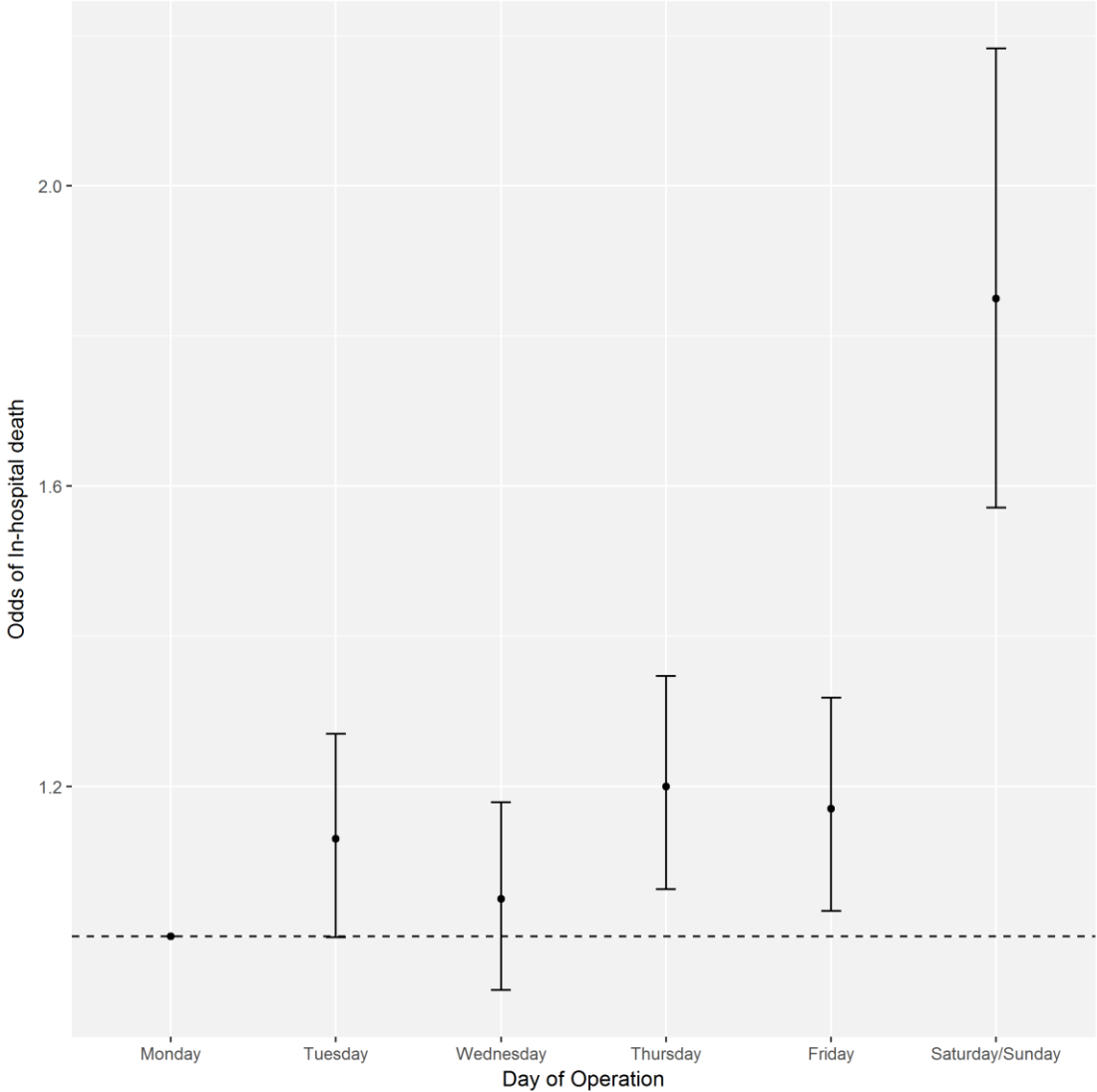


Table S1: Proportion of cases by Day of the Week per Centre (n=110,728)

Centre Identifier 1 (n=18515) 2 (n=9616) 3 (n=6625) 4 (n=15438) 5 (n=6906) 6 (n=9900) 7 (n=7793) 8 (n=7501) 9 (n=17112) 10 (n=11322)

Operative Day										
Monday	19.6	22.3	21.0	20.5	18.6	18.2	18.6	16.0	18.3	19.5
Tuesday	20.4	17.6	20.6	20.3	21.3	19.7	22.0	23.9	19.2	17.6
Wednesday	17.4	20.3	21.8	18.6	23.6	21.7	18.5	21.4	20.7	19.7
Thursday	21.4	17.8	20.6	20.0	16.4	21.5	17.6	20.5	18.7	20.3
Friday	17.8	19.3	15.0	17.7	16.7	16.3	17.0	16.0	17.4	16.3
Saturday/Sunday	3.4	2.7	1.0	2.9	3.4	2.6	6.3	2.2	5.7	6.6

Table S2: Proportion of cases by Day of the Week per cohort year (n=110,728)

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Operative Day												
Monday	20.0	18.9	18.6	18.8	19.3	19.6	19.5	19.5	19.5	19.6	19.8	18.1
Tuesday	18.4	19.6	19.5	20.0	20.3	20.0	19.7	20.5	20.4	20.5	20.9	21.4
Wednesday	20.4	19.5	19.0	19.5	20.5	20.5	20.6	19.9	19.9	20.0	18.6	19.2
Thursday	17.8	19.2	18.8	19.2	19.5	19.5	18.7	19.8	21.2	21.3	21.6	23.9
Friday	19.8	17.9	18.2	17.7	17.2	17.3	16.2	16.4	16.5	16.3	16.4	15.2
Saturday/Sunday	3.6	4.9	5.9	4.8	3.2	3.1	5.3	3.9	2.5	2.3	2.7	2.2

Table S3: Model output for the three-level cross-classified model with operative day. P-values correspond to pairwise tests of significance compared to the reference level (i.e. Monday operations).

Fixed Effects	Estimate	95% Confidence Interval	P-value
Model Intercept	-4.096	(-4.219, -3.974)	< 0.0001
Logistic EuroSCORE	0.899	(0.871, 0.927)	< 0.0001
Tuesday	0.113	(-0.011, 0.238)	0.074
Wednesday	0.045	(-0.079, 1.169)	0.478
Thursday	0.144	(0.021, 0.267)	0.021
Friday	0.094	(-0.032, 0.220)	0.145
Saturday/Sunday	0.252	(0.074, 0.430)	0.006
Random Effects	Centre variability	Surgeon variability	Anaesthetist variability
ICC	<0.01%	4.07%	0.21%
Model Selection Criteria	AIC	BIC	
	26151	26249	

Table S4: Model output for the three-level cross-classified model with operative day, allowing for interaction with operative urgency. P-values correspond to pairwise tests of significance compared to the reference level (i.e. Monday Elective operations).

Fixed Effects	Estimate	95% Confidence Interval	P-value
Model Intercept	-4.204	(-4.367,-4.042)	< 0.0001
Logistic EuroSCORE	0.784	(0.752,0.816)	< 0.0001
Urgent	0.356	(0.163,0.548)	< 0.0001
Emergency/Salvage	0.885	(0.607,1.163)	< 0.0001
Tuesday	0.055	(-0.116,0.226)	0.527
Wednesday	-0.032	(-0.204,0.141)	0.720
Thursday	0.115	(-0.053,0.284)	0.180
Friday	0.059	(-0.121,0.240)	0.518
Saturday/Sunday	-0.449	(-0.863,-0.035)	0.034
Urgent: Tuesday	0.143	(-0.115,0.401)	0.277
Emergency/Salvage:Tuesday	0.010	(-0.357,0.378)	0.956
Urgent: Wednesday	0.108	(-0.152,0.367)	0.416
Emergency/Salvage:Wednesday	0.161	(-0.208,0.530)	0.392
Urgent: Thursday	0.057	(-0.199,0.312)	0.664
Emergency/Salvage:Thursday	-0.016	(-0.377,0.346)	0.932
Urgent: Friday	0.041	(-0.225,0.307)	0.760

Emergency/Salvage:Friday	-0.119	(-0.484,0.245)	0.521
Urgent:Saturday/Sunday	0.560	(-0.038,1.159)	0.066
Emergency/Salvage Saturday/Sunday	0.517	(0.004,1.030)	0.048
Random Effects	Centre variability	Surgeon variability	Anaesthetist variability
ICC	0.34%	4.04%	0.26%
Model Selection Criteria	AIC	BIC	
	25929	26044	

Table S5: Odds ratios and associated 95% confidence intervals for each operative priority level on weekdays, and on weekends. Weekday elective operations are used as the reference level.

	Weekday	Saturday/Sunday
Elective	1	0.61 (0.41, 0.91)
Urgent	1.54 (1.41, 1.67)	1.53 (1.01, 2.31)
Emergency/Salvage	2.43 (2.14, 2.77)	2.49 (2.03, 3.05)

Table S6: Model output for the three-level cross-classified model with operative day as a continuous variable, allowing for interaction with operative urgency.

Fixed Effects	Estimate	95% Confidence Interval	P-value
Model Intercept	-4.18	(-4.34,-4.01)	< 0.0001
Logistic EuroSCORE	0.786	(0.753,0.817)	< 0.0001
Urgent	0.400	(0.212,0.589)	< 0.0001
Emergency/Salvage	0.914	(0.663,1.165)	< 0.0001
Operative day	-0.0002	(-0.037,0.037)	0.993
Urgent:Operative Day	0.012	(-0.043,0.067)	0.665
Emergency/Salvage:Operative Day	-0.003	(-0.066,0.059)	0.923
Random Effects	Centre variability	Surgeon variability	Anaesthetist variability
ICC	0.35%	3.97%	0.28%

Table S7: Proportion of cases by Operative Priority per Centre (n=110,728)

Centre Identifier	1 (n=18515)	2 (n=9616)	3 (n=6625)	4 (n=15438)	5 (n=6906)	6 (n=9900)	7 (n=7793)	8 (n=7501)	9 (n=17112)	10 (n=11322)
Operative Priority level										
Elective	78.3	53.1	73.2	58.9	79.70	72.2	52.3	69.4	79.1	66.7
Urgent	16.5	37.6	24.0	37.7	18.2	25.1	42.4	27.5	18.7	28.6
Emergency/Salvage	5.2	9.3	2.8	3.4	2.1	2.7	5.3	3.1	2.2	4.7

Table S8: Odds ratios for mortality post-CABG surgery only by operative day (as categorical variable), adjusted for the logistic EuroSCORE as fixed, and centre, surgeon and anaesthetist as random effects. P-values correspond to pairwise tests of significance compared to the reference day (i.e. Monday).

	<i>Odds Ratio (95% Confidence Interval)</i>	<i>p-value</i>
Monday	1	-
Tuesday	1.15 (0.92, 1.44)	0.229
Wednesday	1.15 (0.92, 1.43)	0.230
Thursday	1.16 (0.93, 1.46)	0.189
Friday	1.17 (0.93, 1.47)	0.186
Saturday/Sunday	1.12 (0.81, 1.55)	0.505