



## Supplementary Material

10.1302/2633-1462.111.BJO2020-0132.R1

**Table i.** Regional distribution of patients from the included centres

Centres	Patients, n
South Warwickshire NHS Foundation Trust	35
University Hospitals Coventry and Warwickshire NHS Trust	46
Worcestershire Acute Hospitals NHS Trust	69
Birmingham Heartlands Hospital NHS Trust	85
University Hospitals Birmingham NHS Foundation Trust	45
Manchester University NHS Foundation Trust	15
The Royal Wolverhampton NHS Trust	29
Walsall Healthcare NHS Trust	22
George Eliot Hospital NHS Trust	21
Sandwell and West Birmingham NHS Trust	37

**Table ii.** Adjusted excess mortality risk analysis.

	COVID-19 positive	Pred COVID-19 negative	%
Valid	404	404	
Missing	0	0	
Mean	0.2836	0.0802	20.3

**Table iii:** Unadjusted and adjusted sensitivity analysis of predictors of 30-day postoperative mortality including American Society of Anesthesiologists (ASA) grade and Nottingham Hip Fracture (NHFS) into adjusted analysis

Characteristics	n (% deceased)	Unadjusted analysis		Adjusted analysis	
		OR (95% CI)	p-value	OR (95% CI)	p-value
<b>COVID-19 status</b>					
COVID-19 cohort	114 (32.5)	6.15 (3.404 to 11.130)	< 0.001	7.140 (3.650 to 13.968)	< 0.001
Non-COVID-19 cohort*	290 (7.2)	N/A	N/A	N/A	N/A
<b>Age</b>					
Mean		1.045 (1.009 to 1.082)	0.015	N/A	N/A
Age < 85*	194 (9.8)	2.101 (1.167 to 3.780)	0.013	1.122 (0.515 to 2.443)	0.771
Age ≥ 85	210 (18.6)	N/A	N/A	N/A	N/A
<b>Sex</b>					
Male	123 (22.8)	2.466 (1.399 to 4.345)	0.002	1.361 (0.655 to 2.826)	0.409
Female*	281 (10.7)	N/A	N/A	N/A	N/A
<b>Time to surgery</b>					
Mean		1.316 (1.091 to 1.586)	0.004	1.333 (1.079 to 1.646)	0.008
< 48hrs*	270 (12.2)	1.466 (0.802 to 2.679)	0.214	N/A	N/A
≥ 48hrs	118 (16.9)	N/A	N/A	N/A	N/A
<b>Pre-admission residence</b>					
Home*	309 (11.7)	2.198 (1.198 to 4.034)	0.011	N/A	N/A
Institution	89 (22.5)	N/A	N/A	N/A	N/A
<b>AMTS</b>					
Mean		0.873 (0.808 to 0.942)	0.000	N/A	N/A
AMTS ≥ 7*	253 (10.3)	2.334 (1.297 to 4.199)	0.005	N/A	N/A
AMTS ≤ 6	128 (21.1)	N/A	N/A	N/A	N/A
<b>ASA</b>					
Mean		1.948 (1.257 to 3.019)	0.003	1.152 (0.648 to 2.047)	0.631
ASA 1&2*	58 (12.1)	1.304 (0.560 to 3.033)	0.538	N/A	N/A
ASA 3+	336 (15.2)	N/A	N/A	N/A	N/A
Unknown	10 (0)	N/A	N/A	N/A	N/A

<b>NHFS</b>					
Mean		1.677 (1.342 to 2.094)	0.000		
NHFS $\leq$ 5*	219 (9.1)	2.572 (1.437 to 4.603)	0.001	1.479 (1.086 to 2.015)	0.013
NHFS $\geq$ 6	185 (20.5)	N/A	N/A	N/A	N/A
<b>Malignancy</b>					
Yes	52 (11.5)	0.757 (0.307 to 1.864)	0.545	N/A	N/A
No*	347 (14.7)	N/A	N/A	N/A	N/A
Unknown	5 (1.7)	N/A	N/A	N/A	N/A
<b>Hb &lt; 10</b>					
Yes	50 (24)	2.147 (1.045 to 4.414)	0.038	N/A	N/A
No*	351 (14.8)	N/A	N/A	N/A	N/A
Unknown	3 (1.7)	N/A	N/A	N/A	N/A
<b><math>\geq</math> 2 comorbidities</b>					
No*	303 (5.1)	3.853 (1.493 to 9.944)	0.005	N/A	N/A
Yes	98 (17.2)	N/A	N/A	N/A	N/A
Unknown	3 (1.7)	N/A	N/A	N/A	N/A

\*Reference.

AMTS, Abbreviated Mental Test Score; Hb, haemoglobin; N/A, not applicable.