

Supplementary Material

Supplemental Table S1. In-hospital outcomes over the study period, 2008 to 2018.

Year	2008	2010	2012	2014	2016	2018	<i>Modeled linear regression P Value*</i>
	(n=148)	(n=267)	(n=310)	(n=584)	(n=753)	(n=373)	
In-hospital Mortality							
Overall	20 (16)	28 (10)	33 (11)	43 (7.4)	54 (7.2)	23 (6.2)	0.001
Elective	5 (6.8)	8 (5.6)	11 (5.5)	14 (3.7)	13 (2.8)	3 (1.2)	<.01
Urgent/Emergent	17 (23)	20 (16)	22 (20)	29 (14)	41 (15)	20 (16)	0.15
Stroke							
Overall	13 (10)	19 (7.1)	25 (8.1)	46 (7.9)	42 (5.6)	33 (8.9)	0.36
Elective	5 (6.8)	12 (8.3)	8 (4.0)	20 (5.2)	16 (3.4)	13 (5.3)	0.12
Urgent/Emergent	11 (15)	7 (5.7)	17 (15)	26 (13)	26 (9.3)	20 (16)	0.49
MMOM							
Overall	52 (41)	91 (34)	111 (36)	167 (29)	180 (24)	98 (27)	<.001
Elective	18 (24)	41 (28)	43 (22)	79 (21)	66 (14)	32 (13)	<.001

Urgent/Emergent	41 (55)	50 (41)	68 (62)	88 (44)	114 (41)	66 (54)	0.96
Any Transfusion							
Overall	92 (72)	194 (73)	220 (71)	365 (63)	471 (63)	204 (55)	<.001
Elective	45 (61)	96 (67)	123 (62)	205 (54)	235 (50)	101 (41)	<.001
Urgent/Emergent	63 (85)	98 (80)	97 (88)	160 (79)	236 (84)	103 (83)	0.06

Trends in in-hospital outcomes in 2435 patients who underwent aortic arch surgery with hypothermic circulatory arrest, between 2008 and 2018, in 12 institutions across Canada. Trend in time for binary, ordinal, categorical or continuous variables was assessed using mixed-effect regression models with random-effect for the center to account for the effect of individual centers. *P value was obtained from a linear regression model using date of surgery as a continuous variable to assess a linear trend across the years from 2008 to 2018. Values are N (%). Any Transfusion: overall total transfusion rates, including pRBC, FFP, platelets and factor VII; MMOM: modified Society of Thoracic Surgeons–defined composite endpoint for major morbidity and operative mortality.