

## **Supplemental material**

### Supp. figure 1 Dendrogram of anatomical variables

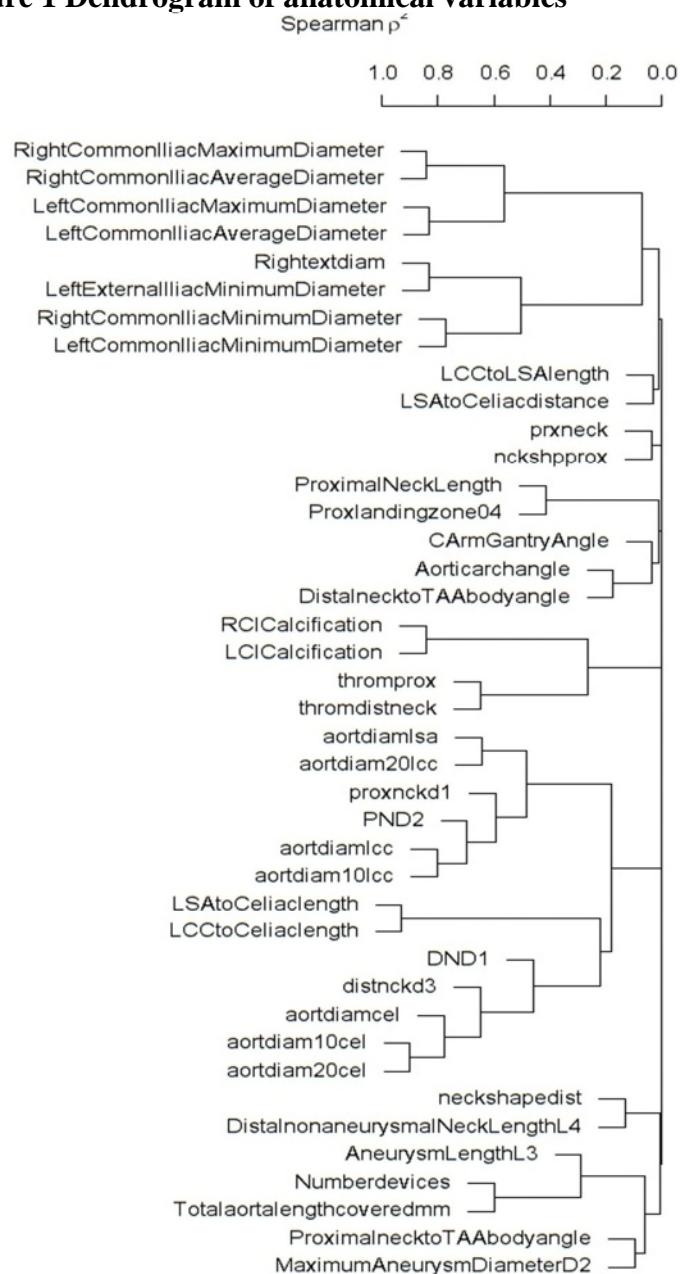
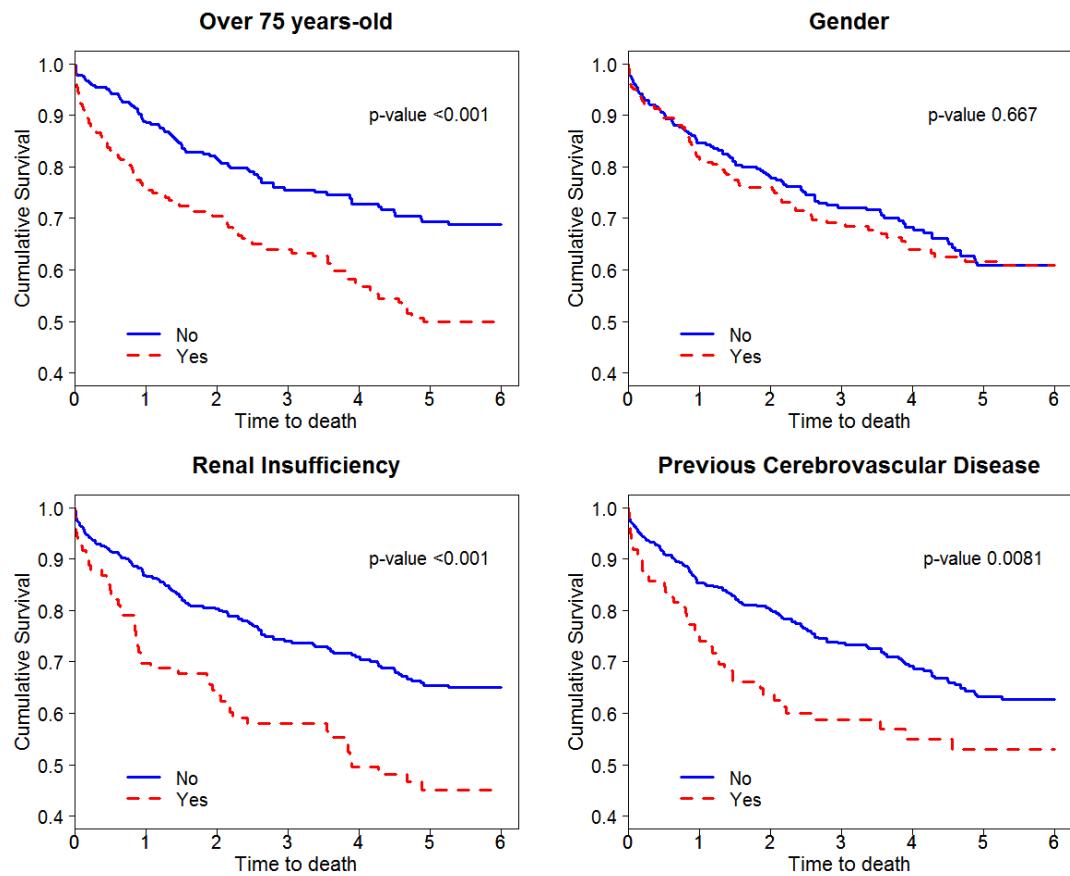


Figure 1: Dendrogram showing co-linearity of some anatomical variables. Variables are paired where there is correlation, and the further to the left, the stronger the relationship.

**Supplemental figure 2**



### Supplemental table 1

	Log-rank test (p-value)
Age > 75	<0.001
Gender	0.388
Previous cerebrovascular disease	0.027
Renal insufficiency	<0.001
Coronary disease	0.277
Respiratory disease	0.125
Diabetes	0.387
Tobacco use	0.098
Peripheral vascular disease	0.531
B-Blocker	0.602
Stains	0.468
Mode of admission	<0.001
ASA	<0.001
LSA covered	0.005
>2 devices required	<0.001
Ishimaru landing zone (0-4)	0.033
Proximal neck calcification	0.258
Proximal neck thrombus	0.747
Proximal neck shape	0.297
Distal neck calcification	0.014
Distal neck thrombus	0.685
Distal neck shape	0.062
Access artery tortuosity	0.12
Right common iliac calcification	0.018
Left common iliac calcification	0.008

Supplemental table 1 showing the results of the univariate analysis of categorical variables using individual Kaplan-Meier survival analyses. The p-value displayed derived from the log-rank test to compare the various groups. LSA = left subclavian artery; ASA = American association of anaesthesiologists. Light grey shading = p<0.1, dark grey shading = p<0.05.

**Supplemental table 2**

<i>All-cause death</i>	t	df	Sig. (2-tailed)	Mean diff.	Std. Error Diff.	95% CI	
<b>Proximal neck diameter</b>	-3.343	582	0.001	-1.464	0.438	-2.324	-0.604
Distal neck diameter	-2.98	559	0.003	-1.326	0.445	-2.2	-0.452
Maximum Aneurysm Diameter	-4.14	586	<0.0001	-4.785	1.157	-7.056	-2.513
Aneurysm length	-2.1	511	0.036	-14.527	6.92	-28.122	-0.931

Table 3 showing univariate analyses of continuous anatomical variables and their association with mid-term all cause death. The independent-samples two-tailed t-test was used to determine if there was a difference in the mean measurements of those who died and those that did not.

**Supplemental table 3**

Time	n.risk	n.event	Survival	std.err	Lower 95% CI	Upper 95% CI
Low Risk						
0	180	0	1	0	1	1
1	148	12	0.93	0.0196	0.892	0.969
2	121	7	0.882	0.0256	0.833	0.934
3	89	6	0.832	0.0312	0.773	0.896
4	61	2	0.808	0.0347	0.743	0.879
5	58	1	0.795	0.0367	0.726	0.87
Medium Risk						
0	185	1	0.995	0.00539	0.984	1
1	145	25	0.855	0.02637	0.805	0.908
2	126	9	0.801	0.03015	0.744	0.863
3	99	9	0.742	0.03384	0.678	0.811
4	79	5	0.699	0.03694	0.63	0.775
5	68	7	0.637	0.0404	0.563	0.721
High Risk						
0	179	3	0.983	0.00959	0.965	1
1	119	47	0.715	0.03416	0.651	0.785
2	100	14	0.629	0.03699	0.561	0.706
3	81	11	0.559	0.03844	0.489	0.64
4	65	7	0.507	0.03962	0.435	0.591
5	55	8	0.443	0.04056	0.37	0.53

Time	n.risk	n.event	Survival	std.err	Lower 95% CI	Upper 95% CI
Low Risk						
0	408	1	0.998	0.00245	0.993	1
1	326	45	0.883	0.01622	0.852	0.915
2	277	16	0.838	0.01892	0.802	0.876
3	210	17	0.782	0.02201	0.74	0.826
4	159	7	0.751	0.02408	0.705	0.8
5	140	12	0.694	0.02735	0.642	0.749
High Risk						
0	136	3	0.978	0.0126	0.954	1
1	86	39	0.685	0.0404	0.61	0.769
2	70	14	0.572	0.0436	0.492	0.664
3	59	9	0.498	0.0443	0.418	0.593
4	46	7	0.433	0.0448	0.354	0.531
5	41	4	0.395	0.0448	0.316	0.493

Table 4 showing life-tables for freedom from all cause death for the high, medium and low-risk division of the development registry.

**Supplemental table 4**

Time	n.risk	n.event	Survival	std.err	Lower 95% CI	Upper 95% CI
Low Risk						
0	68	0	1	0	1	1
1	52	4	0.93	0.0337	0.866	0.999
2	43	3	0.873	0.0449	0.79	0.966
3	33	1	0.852	0.0488	0.761	0.953
4	24	2	0.785	0.0639	0.669	0.921
5	15	0	0.785	0.0639	0.669	0.921
Medium Risk						
0	77	5	0.935	0.0281	0.882	0.992
1	49	10	0.789	0.0487	0.699	0.891
2	41	2	0.755	0.0521	0.66	0.865
3	31	3	0.69	0.0598	0.582	0.818
4	20	2	0.643	0.0643	0.529	0.782
5	9	1	0.572	0.0884	0.422	0.774
High Risk						
0	78	3	0.962	0.0218	0.92	1
1	57	13	0.793	0.0462	0.707	0.889
2	42	6	0.7	0.0543	0.601	0.815
3	27	5	0.603	0.0618	0.493	0.737
4	15	10	0.371	0.0693	0.257	0.535
5	5	5	0.242	0.0653	0.142	0.411

Time	n.risk	n.event	Survival	std.err	Lower 95% CI	Upper 95% CI
Low Risk						
0	167	6	0.964	0.0144	0.936	0.993
1	117	18	0.841	0.0299	0.785	0.902
2	95	7	0.788	0.0341	0.724	0.858
3	72	4	0.749	0.0376	0.679	0.827
4	48	8	0.656	0.0453	0.573	0.751
5	26	1	0.631	0.0501	0.54	0.737
High Risk						
0	56	2	0.964	0.0248	0.917	1
1	41	9	0.803	0.0533	0.705	0.914
2	31	4	0.717	0.0626	0.604	0.851
3	19	5	0.588	0.0736	0.46	0.751
4	11	6	0.389	0.0824	0.257	0.589
5	3	5	0.212	0.0737	0.108	0.419

Table 5 showing life-tables for freedom from re-intervention for the high, medium and low-risk division of the UFCM group.



