

Table S1. Factors associated with aortic aneurysm subgroup according to Cox regression in different lower-limit age groups

Study cohort	AA events	AF cohort vs. matched cohort					
		Crude HR	95% CI	P-value	Adjusted HR	95% CI	P-value
Age $\geq$ 20 years (n=116,225)	Overall	1.552	1.294-1.942	<0.001	1.243	1.101-1.398	<0.001
	TAA	1.926	1.371-2.246	<0.001	1.464	1.197-1.784	<0.001
	AAA	1.531	1.126-1.833	0.003	1.213	1.098-1.295	0.009
	Other AA	1.673	1.300-2.015	<0.001	1.279	1.114-1.337	<0.001
Age $\geq$ 40 years (n=116,022)	Overall	1.467	1.351-1.597	0.004	1.201	1.098-1.346	0.010
	TAA	1.720	1.402-2.131	<0.001	1.493	1.195-1.774	0.001
	AAA	1.406	1.315-1.519	0.012	1.106	1.005-1.221	0.045
	Other AA	1.518	1.354-1.722	0.008	1.245	1.111-1.302	0.027

HR = hazard ratio; CI = confidence interval; Adjusted HR: adjusted variables in the Table 3.; AF = atrial fibrillation; AA = aortic aneurysm; TAA = thoracic aortic aneurysm; AAA = abdominal aortic aneurysm

Table S2 Factors associated with atrial fibrillation stratified by aortic aneurysm subgroup according to Cox regression in different lower-limit age groups

Study cohort	AA cohort	AA cohort vs. matched cohort					
		Crude HR	95% CI	P-value	Adjusted HR	95% CI	P-value
Age $\geq$ 20 years (n = 19,776)	Overall	1.174	1.045-1.299	0.001	1.187	1.079-1.301	<0.001
	TAA	1.504	1.243-1.867	<0.001	1.525	1.296-1.914	<0.001
	AAA	1.189	1.086-1.346	0.016	1.201	1.125-1.483	0.002
	Other AA	1.098	1.002-1.235	0.048	1.156	1.044-1.285	0.039
Age $\geq$ 40 years (n = 19,614)	Overall	1.249	1.140-1.370	<0.001	1.382	1.278-1.484	<0.001
	TAA	1.681	1.448-1.951	<0.001	1.795	1.496-2.150	<0.001
	AAA	1.265	1.113-1.436	<0.001	1.334	1.231-1.556	<0.001
	Other AA	1.130	1.104-1.259	0.027	1.280	1.195-1.297	0.003

HR = hazard ratio; CI = confidence interval; Adjusted HR: adjusted variables in the Table 4.; AF = atrial fibrillation; AA = aortic aneurysm; TAA = thoracic aortic aneurysm; AAA = abdominal aortic aneurysm