

Table 1. Participants' characteristics of with and without acquired hemophilia A for the baseline period.

Variable	Category	AHA (N = 34)	no AHA (N = 1,160,877)	P- value
Age		78.0 ± 9.4	73.8 ± 8.6	0.004
Age	60 - 69	9 (26.5)	456,548 (39.3)	0.002
	70 - 79	7 (20.6)	439,753 (37.0)	
	≥ 80	18 (52.9)	274,576 (23.7)	
Sex	Men	18 (52.9)	508,563 (43.8)	0.286
Without any comorbidities		6 (17.7)	451,709 (38.9)	0.007
Comorbidities (Charlson)				
Cerebrovascular disease	Presence	10 (29.4)	217,309 (18.7)	0.168
Any malignancy	Presence	4 (11.8)	117,197 (10.1)	0.969
Dementia	Presence	6 (17.7)	61,565 (5.3)	0.005
AIDS / HIV	Presence	0	135 (0.0)	1.000
Myocardial infarction	Presence	3 (8.8)	28,754 (2.5)	0.067
Renal disease	Presence	2 (5.9)	43,523 (3.8)	0.839
Congestive heart failure	Presence	10 (29.4)	156,058 (13.4)	0.013
Peripheral vascular disease	Presence	8 (23.5)	128,202 (11.0)	0.040
Chronic pulmonary disease	Presence	4 (11.8)	228,647 (19.7)	0.344
Rheumatic disease	Presence	5 (14.7)	35,546 (3.1)	0.001
Peptic ulcer disease	Presence	9 (26.5)	218,404 (18.8)	0.356
Liver disease (mild)	Presence	5 (14.7)	172,724 (14.9)	1.000
Liver disease (moderate or severe)	Presence	0	3,915 (0.3)	1.000
Diabetes mellitus without chronic complications	Presence	3 (8.8)	27,596 (2.4)	0.057
Diabetes mellitus with chronic complications	Presence	2 (5.9)	69,439 (6.0)	1.000
Hemiplegia or paraplegia	Presence	0	14,950 (1.3)	1.000
Metastatic solid tumor	Presence	2 (5.9)	15,665 (1.6)	0.122

Other comorbidities

Alzheimer's disease	Presence	6 (17.7)	46,554 (4.0)	<0.001
Skin disease*	Presence	0	8,257 (0.7)	1.000

AHA, acquired hemophilia A; AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus. The bold type indicates statistical significance. *Skin diseases include pemphigus, epidermolysis bullosa, erythema annulare centrifugum, erythema multiforme, exfoliative dermatitis and psoriasis.

Table 2. Univariate Cox Regression Hazards Analysis for incidence of acquired hemophilia A.

Variable (reference)	Category	HR	95%CI	P-value
Age (60-69 years)	70-79 years	0.81	0.30-2.16	0.668
	>80 years	3.64	1.64-8.11	0.002
Sex (vs. men)	Women	0.63	0.32-1.23	0.178
Comorbidities by Charlson (absence)				
Cerebrovascular disease	Presence	1.96	0.94-4.10	0.074
Any malignancy	Presence	1.37	0.48-3.89	0.555
Dementia	Presence	5.34	2.21-12.94	<0.001
AIDS / HIV	Presence	NE	NE	NE
Myocardial infarction	Presence	4.35	1.33-14.25	0.015
Renal disease	Presence	2.03	0.49-8.50	0.330
Congestive heart failure	Presence	3.17	1.51-6.63	0.002
Peripheral vascular disease	Presence	2.53	1.14-5.58	0.022
Chronic pulmonary disease	Presence	0.57	0.20-1.62	0.293
Rheumatic disease	Presence	5.62	2.17-14.51	<0.001
Peptic ulcer disease	Presence	1.59	0.74-3.41	0.232
Liver disease (mild)	Presence	1.00	0.39-2.58	0.996
Liver disease (moderate or severe)	Presence	NE	NE	NE
Diabetes mellitus without chronic complications	Presence	4.78	1.46-15.64	0.010
Diabetes mellitus with chronic complications	Presence	1.03	0.25-4.30	0.968
Hemiplegia or paraplegia	Presence	NE	NE	NE
Metastatic solid tumor	Presence	7.24	1.73-30.25	0.007
Other comorbidities				
Alzheimer's disease	Presence	6.72	2.78-16.28	<0.001
Skin disease *	Presence	NE	NE	NE
Medications				
All antibiotics	Presence	1.97	0.97-3.98	0.059
Aminoglycosides	Presence	2.61	0.92-7.40	0.072
All beta-lactam antibiotics	Presence	1.91	0.98-3.75	0.059
Penicillin	Presence	2.10	0.64-6.87	0.220

Cephalosporins	Presence	1.51	0.76-3.02	0.241
Carbapenems	Presence	12.31	3.76-40.30	<0.001
Other beta-lactam antibiotics	Presence	NE	NE	NE
Chloramphenicol	Presence	NE	NE	NE
Fosfomicin	Presence	2.19	0.30-16.05	0.439
Glycopeptides	Presence	21.55	2.94-157.76	0.003
Macrolides	Presence	1.52	0.69-3.37	0.297
Tetracyclines	Presence	2.41	0.33-17.62	0.386
Quinolones	Presence	1.30	0.57-2.99	0.534
Sulfa drugs	Presence	4.36	0.60-31.92	0.147
Other antibiotics	Presence	NE	NE	NE
Amiodarone	Presence	NE	NE	NE
Antifungal drugs	Presence	NE	NE	NE
All antihypertensive drugs	Presence	1.66	0.84-3.29	0.144
ACE inhibitors	Presence	NE	NE	NE
ARBs	Presence	1.23	0.60-2.52	0.577
CCBs	Presence	1.77	0.91-3.47	0.095
DRI	Presence	NE	NE	NE
Clopidogrel	Presence	1.01	0.14-7.37	0.994
Diuretics	Presence	1.02	0.31-3.35	0.971
Antidiabetic drugs	Presence	0.76	0.23-2.48	0.649
Fludarabine	Presence	NE	NE	NE
Heparin	Presence	2.03	0.62-6.63	0.243
All anticonvulsants	Presence	1.35	0.18-9.87	0.768
Phenytoin	Presence	12.95	1.77-94.75	0.012
Phenytoin (prodrug)	Presence	NE	NE	NE
All antideementia drugs	Presence	4.98	1.75-14.15	0.003
Donepezil	Presence	4.78	1.46-15.65	0.010
Galanthamine	Presence	NE	NE	NE
Memantine	Presence	5.99	0.82-43.87	0.078
Rivastigmine	Presence	NE	NE	NE

ACE, angiotensin-converting enzyme; ARB, angiotensin II receptor blocker; CCB, calcium channel blocker; CI, confidence interval; DRI, direct renin inhibitor; HR, hazard ratio; NE, not

estimated. The bold type indicates statistical significance. *Skin diseases include pemphigus, epidermolysis bullosa, erythema annulare centrifugum, erythema multiforme, exfoliative dermatitis and psoriasis.

Table 3. Multivariable Cox regression analysis for incidence of acquired hemophilia A.

Variable	HR	95%CI	P-value
Age	1.04	1.00-1.09	0.067
Alzheimer's disease	4.28	1.67-10.97	0.002
Congestive heart failure	1.95	0.90-4.28	0.092
Peripheral vascular disease	1.78	0.79-4.01	0.166
Rheumatic disease	4.65	1.79-12.12	0.002

The HR is for presence of the risk factor and for one year of age.

CI, confidence interval; HR, hazard ratio. The bold type indicates statistical significance. Alzheimer's disease and rheumatic disease were identified as risk factors for acquired hemophilia A.

Table 4. Treatment among patients with acquired hemophilia A.

Treatment	Number of AHA patients (%) N=34
Immunosuppressive agent	32 (94.1)
Steroids alone	27 (79.4)
Steroids and cyclophosphamide	5 (14.7)
Bypassing treatment	10 (29.4)
Recombinant activated Factor VII	7 (20.6)
Plasma-derived activated prothrombin complex concentrate	6 (17.6)
Transfusion	12 (34.3)

AHA, acquired hemophilia A.