Supplementary Data Association between autoimmune diseases and all-cause mortality in patients with cardiac arrhythmia CATALOGUE

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Arrhythmias	Information	ICD code in MIMIC-IV
Atrial fibrillation	An episode of atrial fibrillation recorded on an	42731; I480; I481; I4811; I4819; I482; I4820; I4821; I4891
	electrocardiogram lasting more than 30 sec.	
Atrial flutter	An episode of atrial flutter recorded on an	42732; 1483; 1484; 14892
	electrocardiogram lasting more than 30 sec.	
Ventricular tachycardia	Including sustained (duration ≥ 30 sec) and	4271; I472
	nonsustained ventricular tachycardia (duration <	
	30 sec) recorded on an electrocardiogram.	
Ventricular fibrillation	Including sustained (duration \geq 30 sec) and	42741; 42742; I4901; I4902
	nonsustained ventricular fibrillation (duration <	
	30 sec) recorded on an electrocardiogram.	
Sick sinus syndrome	Sinus rate <50 bpm and/or a sinus pause >3 sec.	I495
Second-degree	P waves with a constant rate (< 100 bpm) where	42612; 42613; I441
atrioventricular block	atrioventricular conduction is present but not 1:1,	
	including Mobitz type I and II.	
Third-degree	No evidence of atrioventricular conduction.	4260; I442
atrioventricular block		

Table 1 of the supplementary data. Information on arrhythmias in this study

Table 2 of the supplementary data. Information on autoimmune diseases in this study based on the American Autoimmune-Related Diseases

 Association

Autoimmune diseases	Information	ICD code in MIMIC-IV	Number
Systemic autoimmune disease			
Amyloidosis	A disorder in which abnormal proteins build up in tissues	27730; 27739; E850-854; E858;	188
	and organs.	E8581; E8582; E8589; E859	
Systemic lupus	An autoimmune disease that can affect almost every organ	7100; M320; M3210-3214; M3219;	69
erythematosus	in the body.	M328; M329	
Sjögren's syndrome	Along with symptoms of extensive dryness, other serious	7102; M3500-M3502; M3509	36
	complications include profound fatigue, chronic pain,		
	major organ involvement, neuropathies, and lymphomas.		
Sarcoidosis	An autoimmune-related disease that leads to inflammation,	135; D860-D863; D8682; D8689;	84
	usually in your lungs, skin, or lymph nodes.	D869	
Musculoskeletal disorders			
Rheumatoid arthritis	A form of arthritis that causes pain, swelling, stiffness, and	7140; 7142; 71430; M0510; M059;	371
	loss of function in joints.	M0600; M0609; M0680; M6861;	
		M069; M0800; M0820	
Ankylosing spondylitis	An autoimmune disease that is a type of arthritis of the	7200; M450; M452-M459	27
	spine.		
Myasthenia gravis	A disease that causes muscle weakness.	35800; 35801; G7000; G7001	52
Fibromyalgia	A chronic disorder characterized by widespread pain,	M797	69
	tenderness and fatigue.		
Polymyalgia rheumatica	A disease characterized by muscle pain and stiffness in the	725; M315; M353	209
	neck, shoulder, and hip area.		
Cutaneous disorders			

Scleroderma	An autoimmune-related disease that causes abnormal	7010; L940	12
	growth of connective tissue.		
Psoriasis	A skin disease that causes itchy or sore patches of thick,	6960; L4051; L4052; L4054; L4059	37
	red skin with silvery scales.		
Vitiligo	A skin disease that causes white patches on the skin.	70901; L80	11
Neurological disorders			
Peripheral neuropathy	An autoimmune-related disease that leads to peripheral	3560; 3568; 3569	450
	nerve damage.		
Restless legs syndrome	An autoimmune syndrome that causes a powerful urge to	33394; G2581	272
	move the legs.		
Multiple sclerosis	A nervous system disease that affects the brain and spinal	340; G35	41
	cord.		
Narcolepsy	A chronic brain disorder that involves poor control of	34700; 34701; 34710; 34711; G47411;	15
	sleep-wake cycles.	G47419; G47429	
Guillain-barre syndrome	A rare autoimmune disorder that causes the immune	G610; G650	9
	system to attack the peripheral nervous system.		
Endocrine disorders			
Type I diabetes	An autoimmune disease that leads to the pancreas not	25001; 25003; 25013; 25041; 25043;	165
	making insulin.	25051; 25053; 25061; 25063; 25071;	
		25081; 25083	
Autoimmune thyroiditis	An autoimmune thyroid disease that causes the thyroid	E063	16
	gland to produce excessive hormones.		
Digestive disorders			
Crohn's disease	An inflammatory autoimmune bowel disease characterized	K5000; K50011-K50014; K5010;	65
	by severe and persistent inflammation of the lining or wall	K50111-K50114; K5080; K50811-	
	of the gastrointestinal tract.	K50814; K5090; K50911-K50914;	

		K50918	
Ulcerative colitis	An autoimmune-related disease that causes inflammation	5568; 5569; K5180; K51811-K51814;	114
	and sores, called ulcers, in the lining of the rectum and	K51818; K5190; K51911-K51914;	
	colon.	K51918; K51919	
Autoimmune hepatitis	A chronic inflammatory autoimmune disease of the liver.	57142; K754	18
Primary biliary cirrhosis	An autoimmune disease with irritation and swelling	K743	8
	(inflammation) of the bile ducts of the liver.		
Celiac disease	An autoimmune disease in which people cannot eat gluten	5790; K900	45
	because it will damage their small intestine.		
Hematological disorders			
Immune thrombocytopenic	An autoimmune bleeding disorder that destroys platelets.	28731; D693	71
purpura			
Autoimmune hemolytic	An autoimmune disorder that causes the premature	2830; 28310; 28319; D590-D592;	68
anemia	destruction of red blood cells.	D594	
Antiphospholipid syndrome	An autoimmune syndrome caused by antiphospholipid	28653; D68312; D6861	26
	antibodies.		
Urinary disorders			
Glomerulonephritis	A type of kidney disease in which the part of the kidneys	58081; 58089; 5809-5813; 5821;	120
	that helps filter waste and fluids from the blood is	58281; 58289; 5829-5832; N022;	
	damaged.	N042; N052; N055; N057	

Therapy	Primary composition of drugs
Glucocorticoids	Prednisone, hydroprednisone, prednisolone, dexamethasone, betamethasone, halometasone, beclomethasone,
	flumethasone, desoximetasone, cortisol, hydrocortisone, fludrocortisone. (The use of these medications was
	determined based on prescription records in the database, regardless of the formulation and dosage.)
Immunosuppressors	Ciclosporin, cyclophosphamide, methotrexate, azathioprine, leflunomide, mycophenolate mofetil, tacrolimus. (The
	use of these medications was determined based on prescription records in the database, regardless of the formulation
	and dosage.)

Table 3 of the supplementary data. Details of primary immunosuppressive therapy in this study.

Table 4 of the supplementary data. Associations between the number of autoimmune diseases and all-cause mortality in patients with arrhythmias

No. of autoimmune diseases	Model 1		Model 2		Model 3		
	95%CI	Р	95%CI	Р	95%CI	Р	
0 (n = 11 994)	Reference		Reference		Reference		
1 (n = 1906)	1.43 (1.33, 1.55)	<.001	1.42 (1.31, 1.53)	< .001	1.34 (1.25, 1.45)	< .001	
2 (n = 266)	1.45 (1.21, 1.74)	<.001	1.45 (1.21, 1.74)	< .001	1.31 (1.09, 1.58)	.004	
$\geq 3 (n = 67)$	1.87 (1.33, 2.64)	< .001	1.86 (1.32, 2.62)	<.001	1.73 (1.22, 2.43)	.002	

Model 1 was adjusted for age, sex, and body mass index; Model 2 was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale-II score, and length of hospital stay; Model 3 was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Score II, length of hospital stay, hypertension, type 2 diabetes mellitus, heart failure, acute myocardial infarction, old myocardial infarction, chronic obstructive pulmonary disease, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmic drugs, and immunosuppressive therapy.

CI, confidence interval.

Variables	Women (n = 5819)	Men (n = 8429)	Р
Age, y	76.4 ± 12.2	72.2 ± 12.4	<.001
Weight,kg	74.7 ± 24.2	89.7 ± 22.7	< .001
LOS, d	10.1 ± 9.7	10.3 ± 11.0	.335
SAPS-II	38.0 ± 11.3	37.2 ± 11.9	< .001
LODS	4.39 ± 2.73	4.63 ± 2.82	< .001
AD	1119 (19.2)	1135 (13.5%)	< .001
HTN	4076 (70.1)	5523 (65.5)	< .001
T2DM	2094 (36.0)	3235 (38.4)	.004
HF	3002 (51.6)	3897 (46.2)	< .001
AMI	593 (10.2)	1040 (12.3)	< .001
OMI	873 (15.0)	1723 (20.4)	< .001
COPD	650 (11.2)	812 (9.6)	.003
Stroke	1867 (32.1)	2346 (27.8)	< .001
Cancer	1926 (33.1)	2917 (34.6)	.062
Arrhythmia subtype			
AF/AFL	5374 (92.4)	7731 (91.7)	.171
VT/VF	422 (7.3%)	898 (10.7)	< .001
Bradyarrhythmias	519 (8.9)	763 (9.1)	.785
Antiarrhythmic treatment			
Beta-blocker	5113 (87.9)	7429 (88.1)	.627
Amiodarone	1833 (31.5)	3223 (38.2)	< .001
Sotalol	148 (2.5)	211 (2.5)	.881
PM/ICD	851 (14.6)	1081 (12.8)	.002
Autoimmune diseases	1119 (19.2)	1135 (13.5)	< .001

Table 5 of the supplementary data. Baseline characteristics between women and men

AD, autoimmune disease; AF, atrial fibrillation; AFL, atrial flutter; AMI, acute myocardial infarction; BMI, body mass index; COPD, chronic obstructive pulmonary disease; HF, heart failure; HTN, hypertension; ICD, implantable cardioverter defibrillator; LOS, length of hospital stay; OMI, old myocardial infarction; PM, pacemaker; T2DM, type 2 diabetes mellitus; VF, ventricular fibrillation; VT, ventricular tachycardia.

The data are expressed as No. (%) or mean \pm standard deviation.



Figure 1 of the supplementary data. Flow chart.

	Patients with AD No. of death/total	Patients without AD No. of death/total	HR (95% CI)	P value			
Model 1	1972/6206	9131/40662	1.42 (1.36, 1.50)	< 0.001			•
Model 2	1972/6206	9131/40662	1.32 (1.26, 1.39)	< 0.001			•
Model 3	1972/6206	9131/40662	1.09 (0.98, 1.22)	0.106		 +⊞- -	
					0.5	1	

Figure 2 of the supplementary data. Association between autoimmune diseases and the risk of all-cause mortality in the general population. Model 1 was adjusted for age, sex, and body mass index; Model 2 was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale II score, and length of hospital stay; Model 3 was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale II score, length of hospital stay, hypertension, type 2 diabetes mellitus, heart failure, acute myocardial infarction, old myocardial infarction, chronic obstructive pulmonary disease, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmic drugs, and immunosuppressive therapy.

	All arrhythmias		AF/AFL			VT/VF			Bradyarrl	ıythmias	
	HR (95% CI)	P value	I	HR (95% CI)	P value		HR (95% CI)	P value		HR (95% Cl)	P value
Excluding HTN	 1.24 (1.10, 1.41)	0.001	1.	.24 (1.09, 1.41)	0.001		1.70 (1.15, 2.52)	0.008	_	1.02 (0.57, 1.85)	0.938
Excluding T2DM	1.25 (1.13, 1.39)	< 0.001		.26 (1.12, 1.40)	< 0.001		1.50 (1.08, 2.07)	0.015	+	1.25 (0.86, 1.80)	0.238
Excluding HF	• 1.22 (1.10, 1.35)	< 0.001	 1.	.23 (1.10, 1.36)	< 0.001		1.69 (1.19, 2.40)	0.003		1.19 (0.79, 1.80)	0.405
Excluding AMI	1.22 (1.12, 1.32)	< 0.001	. !- 1.3	.22 (1.12, 1.32)	< 0.001		1.29 (1.01, 1.64)	0.042	┼■──	1.29 (0.96, 1.72)	0.090
Excluding OMI	I.21 (1.11, 1.32)	< 0.001	¦ − 1.3	21 (1.11, 1.33)	< 0.001	+■	1.28 (0.97, 1.69)	0.081	+	1.25 (0.93, 1.69)	0.140
Excluding COPD	• 1.29 (1.19, 1.40)	< 0.001	1.	30 (1.19, 1.41)	< 0.001		1.27 (1.01, 1.60)	0.047		1.27 (0.96, 1.68)	0.090
Excluding stroke	• 1.25 (1.14, 1.38)	< 0.001	¦ − 1.3	24 (1.13, 1.37)	< 0.001		1.23 (0.91, 1.65)	0.173	┽╸	1.18 (0.86, 1.63)	0.315
Excluding cancer	🗕 1.29 (1.17, 1.43)	< 0.001	1.	30 (1.17, 1.44)	< 0.001		1.52 (1.12, 2.05)	0.007	- =	1.14 (0.79, 1.66)	0.485
Excluding SHD	1.32 (1.13, 1.54)	< 0.001	1.3	.34 (1.15, 1.58)	< 0.001		1.89 (1.12, 3.21)	0.018		1.25 (0.75, 2.08)	0.402
					Γ						
0	1 1.5 2	0	1 1.5 2		0	1 1.5 2			0 1 1.5 2		

Figure 3 of the supplementary data. Results of sensitivity analyses with different additional exclusions. The model was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale-II score, length of hospital stay, HTN, T2DM, HF, AMI, OMI, COPD, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmic drugs.

AF, atrial fibrillation; AFL, atrial flutter; AMI, acute myocardial infarction; BMI, body mass index; CI, confidence interval; COPD, chronic obstructive pulmonary disease; CI, confidence interval; HF, heart failure; HR, hazard ratio; HTN, hypertension; HR, hazard ratio; OMI, old myocardial infarction; SHD, structural heart disease (AMI, OMI, dilated cardiomyopathy, valvular heart disease); T2DM, type 2 diabetes mellitus; VF, ventricular fibrillation; VT, ventricular tachycardia.



Figure 4 of the supplementary data. Probability densities analysis before and after propensity score matching. AD, autoimmune disease.



Figure 5 of the supplementary data. Standardized mean difference analysis before and after propensity score matching. HF, heart failure; DM, diabetes mellitus; HTN, hypertension; OMI, old myocardial infarction.

Arrhythmia	Patients with AD No. of death/total	Patients without AE No. of death/total)		HR (95% CI)	P value
All arrhythmias	907/2201	2202/6477		 -	1.22 (1.13, 1.32)	< 0.001
AF/AFL	843/2023	2065/5972		- 	1.21 (1.12, 1.32)	< 0.001
VT/VF	116/231	240/574		 -	1.30 (1.03, 1.65)	0.032
Bradyarrhythmias	79/232	167/597		 =	1.23 (0.93, 1.63)	0.142
			0	1 1.5 2		

Figure 6 of the supplementary data. Association between autoimmune diseases and the risk of all-cause mortality after propensity score matching. This model was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale-II score, length of hospital stay, hypertension, type 2 diabetes mellitus, heart failure, acute myocardial infarction, old myocardial infarction, chronic obstructive pulmonary disease, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmic drugs, and immunosuppressive therapy. AF, atrial fibrillation; AFL, atrial flutter; VT, ventricular tachycardia; VF, ventricular fibrillation.



Figure 7 of the supplementary data. Analysis of all-cause mortality stratified by potential risk factors across various arrhythmia subtypes. The model was adjusted for age, sex, BMI, length of organ dysfunction score, Simplified Acute Physiology Scale-II score, length of hospital stay, hypertension, type 2 diabetes mellitus, heart failure, acute myocardial infarction, old myocardial infarction, chronic obstructive pulmonary disease, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmic drugs.

AF, atrial fibrillation; AFL, atrial flutter; BMI, body mass index; CI, confidence interval; HR, hazard ratio; VF, ventricular fibrillation; VT, ventricular tachycardia.

	All arrhythm	ias			AF/AFL			
		HR (95% CI)	P value	Pinteraction		HR (95% CI)	P value	Pinteraction
Systemic autoimmune disease	1	1.36 (1.15, 1.60)	< 0.001	0.141	1 <u>+</u>	1.35 (1.14, 1.60)	0.001	0.195
Men		1.56 (1.23, 1.99)	< 0.001			1.53 (1.20, 1.96)	0.001	
Women	4 4 -	1.21 (0.97, 1.53)	0.093		4 6 -	1.23 (0.97, 1.55)	0.092	
Musculoskeletal disorders	+	1.06 (0.93, 1.21)	0.382	0.678	+	1.04 (0.90, 1.19)	0.620	0.358
Men	+	1.10 (0.89, 1.37)	0.363		+	1.13 (0.91, 140)	0.282	
Women	+	1.03 (0.87, 1.22)	0.697		+	0.98 (0.82, 1.17)	0.835	
Dermatic disorders		1.55 (1.04, 2.31)	0.033	0.599		1.45 (0.95, 2.20)	0.084	0.560
Men		1.39 (0.77, 2.51)	0.275			1.27 (0.68, 2.37)	0.448	
Women		1.79 (1.01, 2.99)	0.049		<u></u>	1.63 (0.92, 1.89)	0.092	
Neurological disorders	• •	1.59 (1.43, 1.78)	< 0.001	0.220		1.58 (1.40, 1.77)	< 0.001	0.397
Men	1 🕳	1.71 (1.47, 1.99)	< 0.001		L 🛖	1.66 (1.42, 1.9.5)	< 0.001	
Women	-	1.46 (1.24, 1.71)	< 0.001		I 🕳	1.47 (1.25, 1.74)	< 0.001	
Endocrine disorders		2.19 (1.76, 2.74)	< 0.001	0.420	_ _	2.26 (1.79, 2.86)	< 0.001	0.759
Men		1.99 (1.47, 2.68)	< 0.001		·	2.16 (1.58, 2.95)	< 0.001	
Women		2.46 (1.77, 3.41)	< 0.001			2.36 (1.65, 3.38)	< 0.001	
Digestive disorders	-	1.18 (0.96, 1.46)	0.124	0.612	-	1.20 (0.96, 1.49)	0.106	0.659
Men	_	1.10 (0.81, 1.49)	0.531			1.12 (0.81, 1.54)	0.493	
Women		1.27 (0.94, 1.71)	0.123			1.27 (0.94, 1.71)	0.117	
Hematological disorders	- 	1.64 (1.29, 2.07)	< 0.001	0.913	I	1.62 (1.27, 2.07)	< 0.001	0.939
Men		1.65 (1.18, 2.29)	0.003		I	1.62 (1.16, 2.28)	0.005	
Women		1.63 (1.16, 2.29)	0.005			1.63 (1.15, 2.31)	0.006	
Urinary disorders		2 50 (1 97 3 18)	< 0.000	0 360		2 80 (2 20 3 57)	< 0.000	0.356
Men		2 73 (1 98 3 78)	< 0.001	0.500		3 05 (2 21 4 22)	< 0.001	01000
Women		2.75 (1.56, 3.76)	< 0.001			2 46 (1 71 3 54)	< 0.001	
l		2.21 (1.54, 5.10)	0.001			2.10 (1.71, 5.54)	< 0.001	
C) 1 2.5 4				0 1 2.5 4			
	VT/VF				Bradyarrhyth	mias		
	VT/VF	HR (95% CI)	P value	Pinteraction	Bradyarrhyth	mias HR (95% CI)	P value	Pinteraction
Systemic autoimmune disease	VT/VF	HR (95% CI) 1.26 (0.75, 2.12)	P value 0.375	Pinteraction 0.679	Bradyarrhyth	mias HR (95% CI) 1.91 (0.99, 3.67)	P value 0.051	Pinteraction 0.546
Systemic autoimmune disease Men		HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91)	P value 0.375 0.314	Pinteraction 0.679	Bradyarrhyth	mias HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53)	P value 0.051 0.042	Pinteraction 0.546
Systemic autoimmune disease Men Women	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35)	P value 0.375 0.314 0.800	Pinteraction 0.679	Bradyarrhyth	mias HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85)	P value 0.051 0.042 0.435	Pinteraction 0.546
Systemic autoimmune disease Men Women Musculoskeletal disorders	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24)	P value 0.375 0.314 0.800 0.003	Pinteraction 0.679 0.218	Bradyarrhyth	mias HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85)	P value 0.051 0.042 0.435 0.125	Pinteraction 0.546 0.515
Systemic autoimmune disease Men Women Musculoskeletal disorders Men	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21)	P value 0.375 0.314 0.800 0.003 0.805	Pinteraction 0.679 0.218	Bradyarrhyth	HR (95% CI) HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87)	P value 0.051 0.042 0.435 0.125 0.079	Pinteraction 0.546 0.515
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01)	P value 0.375 0.314 0.800 0.003 0.805 0.009	Pinteraction 0.679 0.218	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.18 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99)	P value 0.051 0.042 0.435 0.125 0.079 0.635	Pinteraction 0.546 0.515
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049	Pinteraction 0.679 0.218 0.924	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689	Pinteraction 0.546 0.515 0.156
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 301) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276	Pinteraction 0.679 0.218 0.924	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546	Pinteraction 0.546 0.515 0.156
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.078	Pinteraction 0.679 0.218 0.924	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546 0.484	Pinteraction 0.546 0.515 0.156
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.078 <0.001	Pinteraction 0.679 0.218 0.924 0.397	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38)	P value 0.051 0.042 0.435 0.125 0.635 0.689 0.546 0.484 0.006	Pinteraction 0.546 0.515 0.156 0.325
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders Men	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.078 <0.001 <0.001	Pinteraction 0.679 0.218 0.924 0.397	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546 0.844 0.006 0.004	Pinteraction 0.546 0.515 0.156 0.325
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.276 0.078 <0.001 <0.001 0.095	Pinteraction 0.679 0.218 0.924 0.397	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546 0.484 0.066 0.004 0.371	Pinteraction 0.546 0.515 0.156 0.325
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.078 <0.001 <0.001 0.095 0.010	Pinteraction 0.679 0.218 0.924 0.397 0.790	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59)	P value 0.051 0.042 0.435 0.125 0.639 0.639 0.546 0.484 0.006 0.004	Pinteraction 0.546 0.515 0.156 0.325 0.847
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 301) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.078 <0.001 <0.001 0.095 0.010 0.031	Pinteraction 0.679 0.218 0.924 0.397 0.790	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (1.21, 5.09)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546 0.484 0.006 0.004 0.371 0.004 0.371 0.013	Pinteraction 0.546 0.515 0.156 0.325 0.847
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.08 (1.07, 4.07 2.01 (0.80, 5.07)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.076 0.078 <0.001 0.095 0.010 0.035 0.010 0.031	Pinteraction 0.679 0.218 0.924 0.397 0.790	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.147 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.25, 5.99) 2.48 (0.25, 8.09)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.848 0.006 0.004 0.371 0.004 0.031	Pinteraction 0.546 0.515 0.156 0.325 0.847
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women Diaestive disorders	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07) 2.01 (0.80, 5.07) 1.38 (0.76, 2.52)	P value 0.375 0.314 0.800 0.03 0.805 0.009 0.276 0.078 <0.001 0.095 0.010 0.031 0.139 0.290	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.56 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.33 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (1.21, 5.09) 2.48 (0.25, 8.09) 0.61 (0.25, 147)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.546 0.546 0.004 0.371 0.004 0.371 0.004 0.013 0.13	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265
Systemic autoimmune disease Men Wosculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women Digestive disorders Men	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.55, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.276 0.078 <0.001 0.095 0.010 0.031 0.139 0.290 0.053	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.33) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (1.21, 5.09) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38)	P value 0.051 0.042 0.435 0.125 0.079 0.635 0.689 0.546 0.484 0.064 0.004 0.371 0.004 0.131 0.131 0.161	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Endocrine disorders Men Women Endocrine disorders Men Women Digestive disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.55, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07) 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.276 0.078 <0.001 0.078 <0.001 0.095 0.010 0.031 0.139 0.290 0.259	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.064 0.371 0.004 0.311 0.271 0.131 0.271 0.845	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Endocrine disorders Men Women Digestive disorders Men Digestive disorders Men Hematological disorders	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07) 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09)	P value 0.375 0.314 0.800 0.003 0.009 0.276 0.078 <0.001 <0.001 0.095 0.010 0.031 0.139 0.290 0.053 0.375 0.119	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (1.21, 5.09) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.006 0.044 0.371 0.004 0.013 0.131 0.271 0.161 0.845 0.538	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Digestive disorders Men Digestive disorders Men Women Digestive disorders Men Women Digestive disorders Men	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09) 1.99 (0.98, 4.03)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.049 0.276 0.076 0.076 0.076 0.076 0.076 0.001 0.095 0.010 0.035 0.375 0.119 0.055	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.22 (0.36, 3.51)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.006 0.004 0.371 0.004 0.371 0.004 0.131 0.271 0.161 0.845 0.846	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women Digestive disorders Men Women Hematological disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09) 1.99 (0.94, 4.03) 0.96 (0.24, 3.01)	P value 0.375 0.314 0.800 0.03 0.805 0.009 0.276 0.078 <0.001 0.095 0.010 0.031 0.095 0.200 0.053 0.375 0.119 0.058	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.56 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 142) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (1.21, 5.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.72 (0.42, 6.96)	P value 0.051 0.042 0.435 0.079 0.635 0.689 0.546 0.484 0.006 0.004 0.371 0.004 0.371 0.004 0.013 0.131 0.271 0.161 0.845 0.538 0.845 0.450	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women Digestive disorders Men Women Hematological disorders Men Women Hematological disorders Men	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.36 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09) 1.99 (0.98, 4.03) 0.50 (0.14, 1.35)	P value 0.375 0.314 0.800 0.003 0.805 0.009 0.276 0.078 <0.001 <0.001 0.095 0.010 0.031 0.139 0.295 0.119 0.055 0.55 0.55 0.173	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367 0.462	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.57 (0.56, 3.85) 1.58 (0.88, 285) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.31 (0.72, 2.39) 2.49 (1.23, 3.03) 1.31 (0.72, 2.39) 2.48 (1.21, 5.09) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.12 (0.42, 6.35) 1.92 (0.49, 0.40)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.064 0.371 0.004 0.371 0.004 0.313 0.131 0.131 0.161 0.845 0.538 0.846 0.486 0.900	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643 0.468
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Dermatic disorders Men Women Neurological disorders Men Women Endocrine disorders Men Women Digestive disorders Men Women Hematological disorders Men Women Hematological disorders Men Women Hematological disorders Men Women Hematological disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.55, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.54) 1.65 (0.88, 3.09) 1.99 (0.98, 4.03) 0.96 (0.24, 3.91) 0.50 (0.19, 1.35) 0.71 (0.23, 2.21)	P value 0.375 0.314 0.800 0.003 0.009 0.276 0.078 <0.001 0.095 0.010 0.031 0.139 0.290 0.053 0.375 0.119 0.055 0.958 0.751	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367 0.462	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.12 (0.36, 3.51) 1.72 (0.42, 6.96) 1.92 (0.90, 4.07) 1.66 (0.68, 4.05)	P value 0.051 0.042 0.435 0.729 0.635 0.689 0.546 0.484 0.004 0.371 0.004 0.013 0.131 0.711 0.161 0.845 0.538 0.846 0.450 0.902	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643 0.468
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Endocrine disorders Men Women Digestive disorders Men Women Hematological disorders Men Women Hematological disorders Men Urinary disorders Men Women	VT/VF	HR (95% Cl) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07) 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09) 1.99 (0.94, 4.03) 0.96 (0.24, 3.91) 0.50 (0.19, 1.35) 0.71 (0.23, 2.21) 0.55 (0.44, 181)	P value 0.375 0.314 0.800 0.003 0.009 0.049 0.276 0.078 <0.001 <0.001 0.095 0.010 0.031 0.139 0.290 0.031 0.139 0.290 0.055 0.958 0.173 0.555 0.958 0.173 0.551 0.171	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367 0.462	Bradyarrhyth	HR (95% Cl) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.49 (1.35, 4.59) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.12 (0.36, 3.51) 1.72 (0.42, 6.96) 1.92 (0.94, 4.05) 3.04 (0.74, 1.24)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.064 0.371 0.004 0.311 0.271 0.131 0.271 0.133 0.384 0.538 0.845 0.538 0.845 0.538	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643 0.468
Systemic autoimmune disease Men Women Musculoskeletal disorders Men Women Dermatic disorders Men Women Neurological disorders Men Women Digestive disorders Men Women Hematological disorders Men Women Hematological disorders Men Women Hematological disorders Men Women Urinary disorders Men Women	VT/VF	HR (95% CI) 1.26 (0.75, 2.12) 1.44 (0.71, 2.91) 1.10 (0.52, 2.35) 1.52 (1.04, 2.24) 1.09 (0.54, 2.21) 1.88 (1.17, 3.01) 2.44 (1.01, 5.95) 2.19 (0.54, 8.94) 2.84 (0.89, 9.08) 1.94 (1.46, 2.58) 2.16 (1.54, 3.04) 1.59 (0.95, 2.68) 2.03 (1.18, 3.48) 2.08 (1.07, 4.07 2.01 (0.80, 5.07) 1.38 (0.76, 2.52) 1.86 (0.99, 3.50) 0.41 (0.06, 2.94) 1.65 (0.88, 3.09) 1.99 (0.98, 4.03) 0.96 (0.24, 3.91) 0.50 (0.19, 1.35) 0.71 (0.23, 2.21) 0.25 (0.04, 1.81)	P value 0.375 0.314 0.800 0.003 0.009 0.049 0.276 0.078 <0.001 <0.078 <0.001 0.095 0.010 0.031 0.139 0.290 0.053 0.375 0.173 0.551 0.171	Pinteraction 0.679 0.218 0.924 0.397 0.790 0.143 0.367 0.462	Bradyarrhyth	HR (95% CI) 1.91 (0.99, 3.67) 2.60 (1.04, 6.53) 1.47 (0.56, 3.85) 1.58 (0.88, 2.85) 2.11 (0.95, 4.87) 1.24 (0.51, 2.99) 0.66 (0.09, 4.78) 0.55 (0.07, 3.89) 2.02 (0.28, 14.5) 1.66 (1.16, 2.38) 1.93 (1.23, 3.03) 1.31 (0.72, 2.39) 2.48 (1.21, 5.09) 2.48 (0.25, 8.09) 0.61 (0.25, 1.47) 0.44 (0.14, 1.38) 1.15 (0.28, 4.74) 1.32 (0.55, 3.19) 1.12 (0.36, 3.51) 1.72 (0.42, 6.96) 1.92 (0.90, 4.07) 1.66 (0.68, 4.05) 3.04 (0.74, 12.4)	P value 0.051 0.042 0.435 0.125 0.689 0.546 0.484 0.006 0.004 0.371 0.004 0.371 0.004 0.371 0.004 0.371 0.151 0.845 0.545 0.546 0.450 0.090 0.265 0.122	Pinteraction 0.546 0.515 0.156 0.325 0.847 0.265 0.643 0.468

Figure 8 of the supplementary data. Sex differences in all-cause mortality risk analysis. The model was adjusted for age, sex, body mass index, length of organ dysfunction score, Simplified Acute Physiology Scale-II score, length of hospital stay, hypertension, type 2 diabetes mellitus, heart failure, acute myocardial infarction, old myocardial infarction, chronic obstructive pulmonary disease, stroke, cancer, pacemaker/implantable cardioverter defibrillator implantation, antiarrhythmia drugs. AF, atrial fibrillation; AFL, atrial flutter; HR, hazard ratio; CI, confidence interval; VF, ventricular fibrillation; VT, ventricular tachycardia.



Figure 9 of the supplementary data. Mediation effect analysis of structural heart disease. This result suggested that structural heart disease was not a mediating factor for the relationship between autoimmune diseases and all-cause mortality (Sobel test: P = .867).



Figure 10 of the supplementary data. Mediation effect analysis of systemic inflammation. This result suggested that the systemic immune inflammation index (SII) was a key mediating factor for the relationship between autoimmune diseases and all-cause mortality (Sobel test: P < .001). SII = platelet count * neutrophil count/lymphocyte count.