

Supplementary Table S1. Multivariate Poisson regression models to estimate IRR of prospective ATE (n=9).

	Unadjusted		Adjusted (Age)		Adjusted (prior ATE)		Adjusted (MD global activity VAS)	
	IRR	p-value	IRR	p-value	IRR	p-value	IRR	p-value
Demographics								
Age ≥50(n= 167) <50 (n=142)	2.63* ref	0.01	- -	- -	1.98* ref	0.03	2.73* ref	0.003 .
Sex, Male Female	4.23* ref	<0.001	3.78* ref	<0.001 .	2.58* ref	<0.001	3.44* ref	<0.001
CV risk factors								
h/o arterial event, yes (n= 10) no	18.78* ref	<.0001	13.46* ref	<0.001	- -	- -	20.43* ref	<0.001
h/o venous event, yes (n= 18) no	1.21 Ref	0.73	0.88 ref	0.80	2.13 ref	0.13	1.11 ref	0.85
CAD without MI, yes no	4.20* ref	<0.001	3.14* ref	<0.001	7.04* ref	<.0001	3.51* ref	<0.001
CHF, yes no	8.84* ref	<0.001	5.47* ref	<0.001	17.01* ref	<.0001	6.10* ref	<0.001
HTN, yes no	3.48* ref	<0.001	2.08* ref	0.02	2.56* ref	<0.001	4.42* ref	<0.001
Hyperlipidaemia, yes no	1.55 ref	0.18	1.07 ref	0.83	0.74 ref	0.33	2.14* ref	0.02
Diabetes, yes no	10.57* ref	<0.001	9.05* ref	<0.001	6.22* ref	<0.001	10.93* ref	<0.001
BMI, Kg/m2	0.73	0.07	0.73	0.06	0.69*	0.03	0.76	0.14
Smoking, ever never	5.98* ref	<0.001	4.68* ref	<0.001	9.45* ref	<0.001	4.63* ref	<0.001
Fhx of premature MI, yes no	-- ref	--	-- ref	--	-- ref	--	-- ref	--
Fhx of premature stroke, yes no	4.21* ref	0.002	3.94* ref	0.002	9.25* Ref	<0.001	3.91* ref	0.002
Lipid panel, log mg/dl								
Total cholesterol	1.71*	<0.001	1.76*	<0.001	1.85*	<0.001	1.58*	0.001
LDL	1.51*	0.01	1.43*	0.02	1.55*	0.004	1.38*	0.03
HDL	0.44*	<0.001	0.37*	<0.001	0.37*	<0.001	0.50*	<0.001
Triglyceride	1.40*	0.02	1.48*	0.01	1.54*	0.002	1.27	0.07
Statin, yes no	0.65 ref	0.44	0.40 Ref	0.09	0.30* ref	0.01	0.70 ref	0.50
Aspirin, yes no	8.04* Ref	<0.001	5.46* Ref	<0.001	3.55* Ref	0.001 ref	10.79* ref	<0.001
IIM characteristics								
Dermatomyositis, yes no	0.44* ref	0.01	0.59 ref	0.07 .	0.59 ref	0.05 .	0.37* ref	0.001
Disease duration ≤1yr 1-5yr >5yr	-- ref --	-- -- --	-- ref --	-- -- --	-- ref --	-- -- --	-- ref --	-- -- --
MD global activity VAS>50(n=102) ≤50 (n=205)	4.02* ref	<.001	4.30* ref	<0.001	5.12* ref	<0.001	- -	- -
MD global damage VAS>50(n=53) ≤50 (n=249)	3.08* ref	0.001	3.00* ref	<0.001	3.88* ref	<0.001	2.51* ref	0.002
Aldolase, log U/L	0.77	0.25	0.85	0.45	1.06	0.77	0.59*	0.03
CPK, log U/L	1.43*	0.01	1.45*	0.01	1.66*	<0.001	1.19	0.22
ESR, log mm/hr	1.45*	0.03	1.38*	0.049	1.36*	0.02	1.36	0.07
hsCRP, log mg/L	1.70*	0.001	1.56*	0.004	1.93*	<0.001	1.56*	0.002
Antisynthetase ab, yes no	0.92 ref	0.84	0.99 ref	0.97	1.27 ref	0.52	0.71 ref	0.39
Tifl gamma ab, yes no	0.97 ref	0.96	1.54 ref	0.41	1.03 ref	0.95	0.88 ref	0.81
ILD, yes no	1.68 ref	0.09	1.67 ref	0.08	1.92* ref	0.02	1.48 ref	0.19
Cancer, ever never	2.48* ref	0.003	1.63 ref	0.10	2.75* ref	<0.001	2.56* ref	0.001
Medications, current								
Prednisone, yes (vs. no)	4.18*	0.01	6.36*	<0.001	2.40	0.08	3.19*	0.03
Anticoagulants, yes (vs. no)	1.72	0.34	1.45	0.49	3.03*	0.03	1.68	0.34
IVIG, yes (vs. no)	0.31*	0.03	0.40	0.08	0.26*	0.01	0.32*	0.03
MMF, yes (vs. no)	0.70	0.31	0.73	0.36	0.36	0.08	0.62	0.16
RTX, yes (vs. no)	3.04*	0.001	6.96*	<0.001	1.70	0.10	2.93*	0.001
CYC, yes (vs. no)	4.91*	<0.001	10.11*	<0.001	9.44*	<0.001	3.49*	0.002
AZA, yes (vs. no)	0.59	0.34	0.65	0.31	0.42	0.95	0.73	0.56
MTX, yes (vs. no)	1.05	0.88	1.65	0.15	0.15	0.94	1.35	0.39
HCQ, yes (vs. no)	0.64	0.28	0.69	0.34	1.22	0.61	0.83	0.64
Biomarkers								
Arylesterase, U/L	0.69	0.07	0.75	0.15	0.88	0.49	0.76	0.14
Lactonase, U/L	0.36*	<0.001	0.31*	<0.001	0.46*	<0.001	0.42*	<0.001
PON Genotype QR or RR QQ	2.58* ref	0.02	3.06* ref	0.004	1.32 ref	0.45	2.11 ref	0.07

Poisson regression models used to estimate the ratio of expected number of events for a unit increase in predictor variable (IRR, incidence rate ratio). Continuous variables reported as change per SD of each variable. Categorical variables compared to referent group (ref)
 Variables log transformed for skewed distribution: Paraoxonase, ESR, hsCRP, aldolase, CPK, lipids.

Supplementary Table S2. Multivariate Poisson regression models to estimate IRR of prospective VTE (n=12).

	Unadjusted		Adjusted (Age)		Adjusted (prior ATE)		Adjusted (MD global activity VAS)	
	IRR	p-value	IRR	p-value	IRR	p-value	IRR	p-value
Demographics								
Age ≥50(n=167) <50(n= 142)	3.50* ref	0.001	-- ref	--	3.98* ref	<0.01	3.63* ref	0.001
Sex, Male Female	1.51 ref	0.22	1.43 ref	0.29	1.56 ref	0.1746	1.28 ref	0.46
CV risk factors								
History of arterial event, yes (n=10) no	4.05* ref	0.003	3.33* ref	0.01	5.42* ref	<0.01	4.47* ref	<0.01
History of venous event, yes(n=18) no	4.83* ref	<0.01	4.33* ref	<0.01	4.83* ref	<0.01	4.51* ref	<0.01
CAD without MI, yes no	2.14* ref	0.03	1.83 ref	0.09	1.95 ref	0.06	1.85 ref	0.08
Atrial fibrillation, yes no	1.14 ref	0.83	0.92 ref	0.90	0.89 ref	0.85	1.35 ref	0.63
HTN, yes no	2.61* ref	0.002	2.13* ref	0.03	2.28* ref	0.01	3.09* ref	<0.01
Hyperlipidaemia, yes no	1.13 ref	0.74	0.93 ref	0.84	1.09 ref	0.81	1.40 ref	0.35
Diabetes, yes no	1.32 ref	0.48	1.19 ref	0.66	1.38 ref	0.41	1.37 ref	0.42
BMI, kg/m2	0.91	0.55	0.90	0.52	0.82	0.24	0.92	0.63
Smoking, ever never	1.28 ref	0.53	1.15 ref	0.72	1.20 ref	0.64	1.17 ref	0.70
Fhx of premature MI, yes no	4.62* ref	<0.01	4.19* ref	<0.01	3.62* ref	<0.01	4.49* ref	<0.01
Fhx of premature stroke, yes no	-- ref	--	-- ref	--	-- ref	--	-- ref	--
Lipid panel, log mg/dl								
Total cholesterol	0.90	0.54	0.85	0.37	0.86	0.29	0.87	0.39
LDL-C	0.81	0.19	0.79	0.11	0.81	0.17	0.76	0.08
HDL-C	0.66	0.03	0.62	0.01	0.78	0.14	0.72	0.05
Triglyceride	1.17	0.34	1.18	0.33	0.95	0.74	1.09	0.55
Statin, yes no	1.80 ref	0.14	1.42 ref	0.38	1.91 ref	0.1	1.87 ref	0.11
Aspirin, yes no	2.30* ref	0.02	1.90 ref	0.08	2.04* ref	0.03	2.83* ref	<0.01
IIM characteristics								
Dermatomyositis, yes no	1.21 ref	0.60	1.42 ref	0.33	1.30 ref	0.45	1.04 ref	0.91
Disease duration ≤1yr 1-5yr >5yr	6.49* ref 3.67	0.003 0.05	6.36* ref 3.10	<0.01 0.09	9.76* ref 5.48*	<0.01 0.01	5.34* ref 4.55*	0.01 0.02
MD global activity VAS>50(n= 102) ≤50(n=205)	1.91* ref	0.04	1.99* ref	0.03	1.69 ref	0.10	-	
MD global damage VAS>50(n=53) ≤50(n=249)	1.08 ref	0.85	1.03 ref	0.93	0.90 ref	0.78	0.92 ref	0.84
Aldolase, log U/L	0.66	0.10	0.68	0.14	0.65	0.09	0.52*	0.02
CPK, log U/L	0.78	0.17	0.76	0.14	0.73	0.07	0.69*	0.03
ESR, log mm/hr	1.56*	0.01	1.50*	0.02	1.43*	0.046	1.50*	0.03
hsCRP, log mg/L	1.10	0.57	1.01	0.93	1.01	0.96	1.05	0.74
Antisynthetase ab, yes no	0.71 ref	0.46	0.72 ref	0.48	0.58 ref	0.24	0.59 ref	0.25
Tifl gamma ab, yes no	1.65 ref	0.28	2.12 ref	0.11	2.20 ref	0.09	1.51 ref	0.37
ILD, yes no	0.84 ref	0.61	0.82 ref	0.56	0.72 ref	0.32	0.76 ref	0.43
Cancer, ever never	1.73 ref	0.10	1.40 ref	0.33	1.73 ref	0.09	1.77 ref	0.08
Medications								
Prednisone, yes (vs. no)	1.52	0.29	1.83	0.13	1.51	0.28	1.24	0.59
Anticoagulants, yes (vs. no)	1.45	0.55	0.41	0.62	0.34	0.10	1.42	0.57
IVIG, yes (vs. no)	1.25	0.53	0.71	0.32	1.23	0.55	1.28	0.48
MMF, yes (vs. no)	0.76	0.45	0.38	0.43	0.71	0.32	0.70	0.31
RTX, yes (vs. no)	2.28*	0.04	1.41*	0.01	1.70	0.19	2.22	0.04
CYC, yes (vs. no)	-		-		-		-	
AZA, yes (vs. no)	0.50	0.28	0.14	0.27	0.44	0.20	0.60	0.41
MTX, yes (vs. no)	2.11*	0.02	1.41*	<0.01	2.05*	0.02	2.53*	<0.01
HCO, yes (vs. no)	0.80	0.58	0.38	0.62	0.64	0.26	0.95	0.90
Biomarkers								
PON Genotype QR or RR QQ	0.64 ref	0.19	0.68 ref	0.25	0.58 ref	0.10	0.59 ref	0.12

Poisson regression models used to estimate the ratio of expected number of events for a unit increase in predictor variable (IRR, incidence rate ratio). Continuous variables reported as change per SD of each variable. Categorical variables compared to referent group (ref)
Variables log transformed for skewed distribution: Paraoxonase, ESR, hsCRP, aldolase, CPK.

Supplementary Table S3-a. IRR of prospective ATE and VTE by lactonase quartiles.

	IRR[95% CI]	p-value
Prospective ATE		
Lactonase Quartile 1 (<11.7)	1.00 (ref)	
Quartile 2 (11.8-15.6)	0.66[0.36-1.23]	0.19
Quartile 3 (15.7-19.5)	0.16[0.06-0.46]	<0.01
Quartile 4 (≥19.6)	*	-
Prospective VTE		
Lactonase Quartile 1 (<11.7)	1.00 (ref)	
Quartile 2 (11.8-15.6)	1.27 [0.51-3.13]	0.61
Quartile 3 (15.7-19.5)	0.31 [0.08-1.23]	0.10
Quartile 4 (≥19.6)	2.17 [0.94-5.01]	0.07

*Unable to provide estimate as no there were no events in this quartile.

Supplementary Table S3-b. IRR of prospective ATE and VTE by arylesterase quartiles.

	IRR[95% CI]	p-value
Prospective ATE		
Arylesterase Quartile 1 (<142)	1.00 (ref)	
Quartile 2 (143-187)	0.58[0.27-1.25]	0.16
Quartile 3 (188-244)	1.00[0.51-1.96]	0.99
Quartile 4 (≥245)	*	
Prospective VTE		
Arylesterase Quartile 1 (<142)	1.00 (ref)	
Quartile 2 (143-187)	1.00[0.44-2.24]	0.99
Quartile 3 (188-244)	0.59[0.23-1.49]	0.26
Quartile 4 (≥245)	1.19[0.47-2.99]	0.72

*Unable to provide estimate as no there were no events in this quartile.