

Regression model outputs

Table 1: Output from multivariable logistic regression model for associations between covariates and either statin prescribing or CVD events in complete cases

COMPLETE CASES		Statin Prescribing			CVD events		
		OR	95% CI		OR	95% CI	
Age band	40-44	1.00	--	--	1.00	--	--
	45-49	0.97	0.75	1.24	3.64	1.66	7.95
	50-54	1.54	1.22	1.96	3.81	1.76	8.28
	55-59	1.98	1.56	2.53	4.82	2.24	10.36
	60-64	1.93	1.50	2.48	5.87	2.73	12.64
	65-69	2.19	1.66	2.87	8.43	3.92	18.13
	70-74	1.85	1.35	2.52	10.80	4.94	23.64
	75-79	2.04	1.42	2.93	9.74	4.21	22.57
	80-84	0.96	0.59	1.57	11.45	4.61	28.40
Sex	Male	1.00	--	--	1.00	--	--
	Female	0.55	0.48	0.63	0.73	0.57	0.93
	Diabetes	5.11	4.42	5.90	1.29	1.00	1.66
	Cholesterol	2.59	2.43	2.77	1.08	0.98	1.20
	Systolic BP	1.01	1.01	1.02	1.02	1.01	1.03
	BMI	1.03	1.02	1.04	1.01	0.99	1.03
Smoking status	Never	1.00	--	--	1.00	--	--
	Ex	1.20	0.97	1.49	1.36	0.96	1.94
	Current	1.75	1.50	2.04	1.33	1.00	1.77
SMI type	Bipolar	1.00	--	--	1.00	--	--
	Schizophrenia	1.00	0.86	1.16	0.96	0.73	1.26
Cohort	2002/3	1.00	--	--	1.00	--	--
	2004/5	2.18	1.64	2.89	0.68	0.47	0.98
	2006/7	2.29	1.74	3.00	0.52	0.36	0.75
	2008/9	1.75	1.33	2.30	0.33	0.22	0.50
	2009/10	1.16	0.89	1.53	0.16	0.10	0.25
Consultation rate	<4	1.00	--	--	1.00	--	--
	4-6	1.14	0.89	1.47	1.23	0.73	2.08
	7-12	1.26	0.99	1.60	1.26	0.77	2.07
	>12	1.38	1.08	1.76	1.40	0.85	2.30
Antipsychotic	None	1.00	--	--	1.00	--	--
	1	0.95	0.80	1.13	0.95	0.70	1.28
	2	0.97	0.83	1.12	0.97	0.73	1.28
Townsend quintile	1	1.00	--	--	1.00	--	--
	2	0.99	0.79	1.24	1.09	0.73	1.63
	3	1.01	0.82	1.26	1.56	1.07	2.27
	4	0.93	0.75	1.15	1.05	0.71	1.55
	5	1.16	0.93	1.44	1.00	0.66	1.50
	Antihypertensive	1.52	1.31	1.75	0.86	0.66	1.10
	Antidepressant	1.23	1.07	1.40	1.63	1.29	2.08
	Mood stabiliser	0.86	0.73	1.00	1.07	0.81	1.42

COMPLETE CASES	Statin Prescribing			CVD events		
	OR	95% CI		OR	95% CI	
Asthma	1.09	0.89	1.34	1.37	0.96	1.94
COPD	1.09	0.78	1.51	2.35	1.55	3.56
FH	10.27	7.09	14.87	1.16	0.66	2.03
AF	0.98	0.52	1.84	0.58	0.17	1.94
Cancer	0.61	0.36	1.04	0.65	0.26	1.65
Hypothyroidism	0.99	0.55	1.80	0.48	0.11	2.05
CKD	0.87	0.67	1.13	1.22	0.79	1.87
Heavy drinking	0.77	0.64	0.92	0.59	0.40	0.86
Non statin use	1.11	0.68	1.82	0.97	0.38	2.49

Table 2: Output from multivariable logistic regression model for associations between covariates and either statin prescribing or CVD events in the full dataset (with imputed values)

IMPUTED DATA	Statin Prescribing			CVD events			
	OR	95% CI		OR	95% CI		
Age band	40-44	1.00	--	--	1.00	--	--
	45-49	1.18	0.98	1.42	2.00	1.57	2.56
	50-54	1.66	1.40	1.98	2.47	1.94	3.15
	55-59	2.11	1.77	2.51	3.21	2.53	4.07
	60-64	2.41	2.01	2.88	4.43	3.49	5.61
	65-69	2.71	2.24	3.28	6.18	4.87	7.85
	70-74	2.30	1.85	2.85	7.64	5.97	9.77
	75-79	1.78	1.39	2.28	7.05	5.42	9.16
	80-84	0.98	0.70	1.37	7.82	5.89	10.38
Sex	Male	1.00	--	--	1.00	--	--
	Female	0.56	0.50	0.61	0.71	0.64	0.79
	Diabetes	7.20	6.49	7.99	1.31	1.13	1.51
	Cholesterol	2.25	2.15	2.36	1.06	1.00	1.13
	Systolic BP	1.01	1.01	1.02	1.01	1.01	1.01
	BMI	1.04	1.04	1.05	1.01	1.00	1.02
Smoking status	Never	1.00	--	--	1.00	--	--
	Ex	1.27	1.10	1.47	1.12	0.96	1.30
	Current	1.58	1.41	1.76	1.38	1.23	1.54
SMI type	Bipolar	1.00	--	--	1.00	--	--
	Schizophrenia	1.01	0.91	1.13	0.83	0.74	0.93
Cohort	2002/3	1.00	--	--	1.00	--	--
	2004/5	2.12	1.78	2.53	0.71	0.63	0.81
	2006/7	2.84	2.39	3.37	0.48	0.42	0.56
	2008/9	2.49	2.09	2.97	0.33	0.28	0.38
	2009/10	2.15	1.80	2.57	0.15	0.13	0.19
Consultation rate	<4	1.00	--	--	1.00	--	--
	4-6	1.79	1.53	2.11	1.01	0.87	1.17
	7-12	2.34	2.00	2.73	1.10	0.96	1.27

IMPUTED DATA		Statin Prescribing			CVD events		
		OR	95% CI		OR	95% CI	
	>12	2.87	2.46	3.35	1.10	0.95	1.27
Antipsychotic	None	1.00	--	--	1.00	--	--
	1	0.94	0.84	1.06	1.01	0.89	1.14
	2	1.11	1.00	1.23	1.05	0.94	1.18
Townsend quintile	1	1.00	--	--	1.00	--	--
	2	0.96	0.82	1.12	1.21	1.03	1.42
	3	1.01	0.87	1.18	1.41	1.21	1.65
	4	0.91	0.78	1.06	1.22	1.04	1.43
	5	1.13	0.97	1.32	1.27	1.07	1.50
	Antihypertensive	2.35	2.12	2.60	1.31	1.17	1.47
	Antidepressant	0.96	0.83	1.11	1.18	1.00	1.38
	Mood stabiliser	1.04	0.83	1.31	1.15	0.93	1.43
	Asthma	1.03	0.94	1.13	1.12	1.01	1.23
	COPD	0.85	0.76	0.94	1.00	0.89	1.12
	FH	38.39	28.99	50.83	1.42	0.95	2.12
	AF	1.22	0.83	1.79	1.04	0.71	1.53
	Cancer	0.64	0.43	0.94	0.69	0.46	1.02
	Hypothyroidism	1.14	0.74	1.76	1.21	0.76	1.94
	CKD	1.29	1.06	1.57	1.17	0.90	1.51
	Heavy drinking	0.95	0.83	1.07	0.98	0.85	1.14
	Non statin use	1.81	1.24	2.66	0.99	0.51	1.89

**Table 3: Analysis of complete case data in the main analysis.
Estimates presented alongside imputed data results**

Section of Main Analysis		N=6915 Complete case analysis			N=45824 Imputed data analysis		
VARIABLES IN THE ADJUSTED MODEL		IRR	95% CI		IRR	95% CI	
Impact of adding additional variables into the model	Crude	1.11	0.78	1.58	1.39	1.11	1.74
	Age + Sex	1.06	0.75	1.51	1.16	0.93	1.46
	Diabetes	1.01	0.70	1.44	1.04	0.82	1.31
	Cholesterol	1.06	0.72	1.56	0.98	0.77	1.25
	BMI	1.03	0.70	1.53	0.96	0.75	1.22
	Sys BP	0.99	0.67	1.46	0.92	0.72	1.18
	Smoker	0.96	0.65	1.42	0.89	0.70	1.14
	SMI type	0.96	0.65	1.43	0.89	0.70	1.14
	Year	0.92	0.62	1.37	0.92	0.72	1.18
	Fully adjusted*	0.88	0.58	1.36	0.89	0.68	1.15
COHORT-SPECIFIC ESTIMATES		IRR	95% CI		IRR	95% CI	
Cohort (fully adjusted*)	2002/3	0.41	0.02	7.08	0.68	0.35	1.32
	2004/5	0.91	0.40	2.06	1.19	0.75	1.88
	2006/7	0.98	0.43	2.24	0.99	0.58	1.69
	2008/9	0.71	0.24	2.07	0.70	0.35	1.41
	2010/11	2.70	0.64	8.35	0.77	0.26	2.31
PRIMARY OUTCOME		IRR	95% CI		IRR	95% CI	
(fully adjusted*)	MI and Stroke	0.88	0.58	1.36	0.89	0.68	1.15
SECONDARY OUTCOMES		IRR	95% CI		IRR	95% CI	
(fully adjusted*)	All-cause mortality	1.02	0.82	1.27	0.89	0.78	1.02
	Stroke	0.85	0.49	1.48	0.96	0.68	1.34
	MI	0.93	0.47	1.83	0.75	0.48	1.15
SUB-GROUP ANALYSES (fully adjusted*)		IRR	95% CI		IRR	95% CI	
SMI type	Bipolar disorder	0.78	0.38	1.61	0.89	0.60	1.32
	Schizophrenia	0.90	0.53	1.52	0.85	0.60	1.20
Gender	Men	0.95	0.53	1.72	0.96	0.65	1.42
	Women	0.86	0.46	1.61	0.84	0.58	1.20
CVD risk strata	≥10%	0.96	0.60	1.53	0.93	0.69	1.26
	≥15%	1.03	0.65	1.62	0.90	0.67	1.21
	≥20%	1.00	0.63	1.60	0.82	0.59	1.13
	≥25%	0.91	0.55	1.50	0.73	0.52	1.05

* Final model covariates (baseline): age and sex, diabetes, total cholesterol concentration, BMI, systolic blood pressure (Sys BP), smoking status, SMI type, cohort time period, antihypertensive use, antidepressant use, quartile of consultation rate, antipsychotic use and type, mood-stabiliser use, Townsend score, asthma, COPD, hypothyroidism, CKD, AF, familial hypercholesterolaemia, heavy drinking, non-statin lipid modification, cancer

Table 4: Output from multivariable linear regression model for associations between statin prescribing and total cholesterol at 1 year after the index date (complete cases)

Factor		Coefficient	Std. Err.	P>t	95% CI	
Statin prescription		-1.29	0.03	<0.001	-1.35	-1.23
Cholesterol at baseline		-0.36	0.01	<0.001	-0.39	-0.34
Age band	40-44	baseline	--	--	--	
	45-49	-0.05	0.04	0.26	-0.13	0.04
	50-54	-0.05	0.04	0.25	-0.13	0.03
	55-59	-0.02	0.05	0.70	-0.11	0.07
	60-64	-0.06	0.05	0.17	-0.15	0.03
	65-69	-0.13	0.05	0.01	-0.23	-0.03
	70-74	-0.11	0.06	0.05	-0.22	0.00
	75-79	-0.20	0.07	<0.001	-0.33	-0.07
	80-84	-0.13	0.08	0.10	-0.27	0.02
Sex	Male	baseline	--	--	--	
	Female	0.09	0.02	<0.001	0.05	0.14
	Diabetes	-0.11	0.03	<0.001	-0.16	-0.06
	Systolic BP	0.00	0.00	0.17	0.00	0.00
	BMI	0.00	0.00	0.05	-0.01	0.00
Smoking status	Never	baseline	--	--	--	
	Ex	-0.02	0.04	0.53	-0.10	0.05
	Current	0.02	0.03	0.51	-0.04	0.07
SMI type	Bipolar	baseline	--	--	--	
	Schizophrenia	-0.04	0.03	0.19	-0.09	0.02
Cohort	2002/3	baseline	--	--	--	
	2004/5	-0.11	0.06	0.07	-0.22	0.01
	2006/7	-0.11	0.06	0.05	-0.23	0.00
	2008/9	-0.06	0.06	0.33	-0.17	0.06
	2009/10	-0.05	0.06	0.34	-0.16	0.06
Consultation rate	<4	baseline	--	--	--	
	4-6	0.00	0.05	0.95	-0.09	0.10
	7-12	-0.03	0.04	0.53	-0.12	0.06
	>12	-0.01	0.04	0.80	-0.10	0.08
Antipsychotic	None	baseline	--	--	--	
	1	-0.05	0.03	0.16	-0.11	0.02
	2	-0.06	0.03	0.03	-0.12	-0.01
Townsend quintile	1	baseline	--	--	--	
	2	-0.02	0.04	0.67	-0.10	0.06
	3	-0.07	0.04	0.07	-0.15	0.00
	4	-0.08	0.04	0.04	-0.15	0.00
	5	-0.03	0.04	0.42	-0.11	0.04
	Antihypertensive	-0.05	0.03	0.06	-0.10	0.00
	Antidepressant	0.03	0.02	0.20	-0.02	0.08
	Mood stabiliser	0.03	0.03	0.33	-0.03	0.08

Factor	Coefficient	Std. Err.	P>t	95% CI	
Asthma	0.08	0.04	0.03	0.01	0.15
COPD	-0.03	0.05	0.53	-0.14	0.07
FH	-0.06	0.07	0.42	-0.21	0.09
AF	0.00	0.12	1.00	-0.24	0.24
Cancer	-0.05	0.11	0.67	-0.26	0.17
Hypothyroidism	-0.24	0.10	0.02	-0.44	-0.04
CKD	-0.02	0.04	0.64	-0.10	0.06
Heavy drinking	0.04	0.03	0.22	-0.02	0.10
Non statin use	0.20	0.10	0.05	0.00	0.39
Model intercept	1.96	0.16	<0.001	1.64	2.27

Table 5: Output from multivariable linear regression model for associations between statin prescribing and total cholesterol at 2 years after the index date (complete cases)

Factor	Coefficient	Std. Err.	P>t	95% CI		
Statin prescription	-1.19	0.04	<0.001	-1.26	-1.12	
Cholesterol at baseline	-0.41	0.01	<0.001	-0.44	-0.38	
Age band	40-44	baseline	--	--	--	
	45-49	-0.01	0.05	0.86	-0.10	0.08
	50-54	-0.04	0.05	0.36	-0.13	0.05
	55-59	-0.01	0.05	0.79	-0.10	0.08
	60-64	-0.02	0.05	0.73	-0.11	0.08
	65-69	-0.15	0.05	0.01	-0.26	-0.04
	70-74	-0.19	0.06	<0.001	-0.31	-0.08
	75-79	-0.19	0.08	0.02	-0.35	-0.03
	80-84	-0.28	0.08	<0.001	-0.44	-0.12
Sex	Male	baseline	--	--	--	
	Female	0.14	0.03	<0.001	0.09	0.19
Diabetes	-0.14	0.03	<0.001	-0.20	-0.08	
Systolic BP	0.00	0.00	0.03	0.00	0.00	
BMI	-0.01	0.00	<0.001	-0.01	0.00	
Smoking status	Never	baseline	--	--	--	
	Ex	-0.05	0.04	0.18	-0.13	0.02
	Current	-0.06	0.03	0.05	-0.12	0.00
SMI type	Bipolar	baseline	--	--	--	
	Schizophrenia	-0.03	0.03	0.27	-0.09	0.03
Cohort	2002/3	baseline	--	--	--	
	2004/5	-0.08	0.07	0.26	-0.23	0.06
	2006/7	0.03	0.07	0.69	-0.11	0.17
	2008/9	0.04	0.07	0.57	-0.10	0.18
	2009/10	0.13	0.07	0.07	-0.01	0.26
Consultation rate	<4	baseline	--	--	--	
	4-6	0.03	0.05	0.55	-0.06	0.12

Factor		Coefficient	Std. Err.	P>t	95% CI	
	7-12	0.05	0.04	0.28	-0.04	0.13
	>12	0.04	0.04	0.31	-0.04	0.13
Antipsychotic	None	baseline	--	--	--	
	1	-0.06	0.04	0.07	-0.13	0.01
	2	-0.07	0.03	0.02	-0.13	-0.01
Townsend quintile	1	baseline	--	--	--	
	2	-0.01	0.04	0.78	-0.10	0.07
	3	-0.12	0.04	0.01	-0.20	-0.04
	4	-0.06	0.04	0.12	-0.14	0.02
	5	-0.07	0.04	0.09	-0.15	0.01
	Antihypertensive	-0.03	0.03	0.35	-0.09	0.03
	Antidepressant	0.02	0.03	0.51	-0.03	0.07
	Mood stabiliser	-0.03	0.03	0.35	-0.09	0.03
	Asthma	0.10	0.04	0.02	0.02	0.19
	COPD	-0.09	0.06	0.13	-0.22	0.03
	FH	0.04	0.09	0.63	-0.13	0.21
	AF	-0.08	0.10	0.43	-0.27	0.11
	Cancer	0.00	0.13	0.99	-0.25	0.25
	Hypothyroidism	-0.03	0.14	0.84	-0.31	0.25
	CKD	-0.03	0.04	0.54	-0.11	0.06
	Heavy drinking	0.04	0.04	0.30	-0.03	0.11
	Non statin use	0.08	0.09	0.37	-0.09	0.25
	Model intercept	2.05	0.17	<0.001	1.71	2.39