

**eTable 19.** Tests of horizontal Pleiotropy and heterogeneity of IVs

Exposure	Outcome	Method	Q	Q_df	P.Q	MR egger intercept	SE	P.intercept
Asthma	COPD	IVW(MRE)	212.5927	118	2.17E-07	NA	NA	NA
Asthma	COPD	MR Egger	223.2974	119	2.34E-08	0.005954252	0.002442715	0.016278754
Asthma	IPF	IVW(MRE)	144.0864	121	0.0748	NA	NA	NA
Asthma	IPF	MR Egger	144.6367	122	0.0792	0.003743058	0.005505858	0.497909505
Asthma	LC	IVW(MRE)	183.8482	103	1.70E-06	NA	NA	NA
Asthma	LC	MR Egger	197.6448	104	8.62E-08	-0.012261959	0.004410476	0.006459982
Asthma	SNO	IVW(MRE)	223.4304	118	1.63E-08	NA	NA	NA
Asthma	SNO	MR Egger	223.8871	119	2.03E-08	-0.000187019	0.000380797	0.624249704
COPD	Asthma	IVW(MRE)	23.1014	17	0.1460	NA	NA	NA
COPD	Asthma	MR Egger	27.1190	18	0.0768	0.006655385	0.003870658	0.103686119
COPD	IPF	IVW(MRE)	38.8561	25	0.0381	NA	NA	NA
COPD	IPF	MR Egger	44.1662	26	0.0145	-0.026505802	0.014340043	0.076410719
COPD	LC	IVW(MRE)	32.1752	18	0.0210	NA	NA	NA
COPD	LC	MR Egger	32.2510	19	0.0293	0.00214387	0.010405714	0.839081281
COPD	SNO	IVW(MRE)	37.7594	24	0.0367	NA	NA	NA
COPD	SNO	MR Egger	38.4393	25	0.0419	0.000511456	0.000777986	0.517173097
IPF	Asthma	IVW(MRE)	15.7944	8	0.0454	NA	NA	NA
IPF	Asthma	MR Egger	16.8857	9	0.0505	-0.003068554	0.004127462	0.478473051
IPF	COPD	IVW(MRE)	20.6878	8	0.0080	NA	NA	NA
IPF	COPD	MR Egger	22.8183	9	0.0066	-0.006066768	0.006683946	0.390578049
IPF	LC	IVW(MRE)	8.6117	5	0.1256	NA	NA	NA
IPF	LC	MR Egger	12.6405	6	0.0491	0.017385947	0.011367728	0.186711348

IPF	SNO	IVW(MRE)	16.8006	7	0.0187	NA	NA	NA
IPF	SNO	MR Egger	17.2354	8	0.0277	-0.000428761	0.001007413	0.68317449
LC	Asthma	IVW(MRE)	54.7909	12	1.97E-07	NA	NA	NA
LC	Asthma	MR Egger	55.5251	13	3.27E-07	-0.002730905	0.00681035	0.695473301
LC	COPD	IVW(MRE)	61.7510	12	1.08E-08	NA	NA	NA
LC	COPD	MR Egger	62.5443	13	1.83E-08	0.005229011	0.013317546	0.701470087
LC	IPF	IVW(MRE)	34.0145	12	0.0007	NA	NA	NA
LC	IPF	MR Egger	34.7098	13	0.0009	-0.010863751	0.021933902	0.629337059
LC	SNO	IVW(MRE)	15.8707	13	0.2562	NA	NA	NA
LC	SNO	MR Egger	16.6202	14	0.2770	0.00060185	0.000768073	0.447325518
SNO	Asthma	IVW(MRE)	66.6340	31	0.0002	NA	NA	NA
SNO	Asthma	MR Egger	70.3195	32	0.0001	-0.009142047	0.0069817	0.200011231
SNO	COPD	IVW(MRE)	77.2614	33	2.07E-05	NA	NA	NA
SNO	COPD	MR Egger	80.1033	34	1.37E-05	-0.011240951	0.01020292	0.278546301
SNO	IPF	IVW(MRE)	62.4088	33	0.0015	NA	NA	NA
SNO	IPF	MR Egger	62.4595	34	0.0021	0.004232841	0.025847276	0.870916179
SNO	LC	IVW(MRE)	53.6829	27	0.0017	NA	NA	NA
SNO	LC	MR Egger	60.8256	28	0.0003	0.033486238	0.017667254	0.068794565

Abbreviations: Q, Cochran's Q statistic; SE, standard error; IVW(MRE), Multiplicative Random Effects Inverse variance weighted; AST, Asthma; COPD, Chronic obstructive pulmonary disease; IPF, Idiopathic Pulmonary Fibrosis; LC, Lung Cancer; SNO, Snoring.