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Supplementary Figure S2: Funnel plots for selected Mendelian randomisation analyses of venous thromboembolism (exposure) and pancreatic, ovarian, endometrial and oral cancer

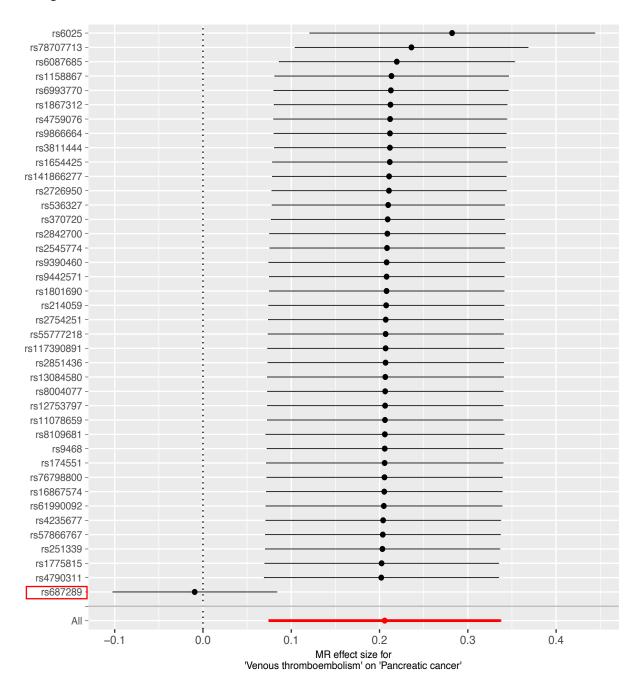
Supplementary Figure S3: Single SNP plots for selected Mendelian randomisation analyses of venous thromboembolism (exposure) and pancreatic, ovarian, endometrial and oral cancer

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Figure S1A



## Supplementary Figure S1 [A – D]:

Leave one out plots for selected MR analyses of VTE (exposure) and [A] pancreatic, [B] ovarian, [C] endometrial and [D] oral cancer. The x-axis shows the MR-IVW effect estimates (log-OR) after sequential removal of each SNP shown on the y-axis. The variant rs687289 which proxies non-O blood group is highlighted.

Figure S1B

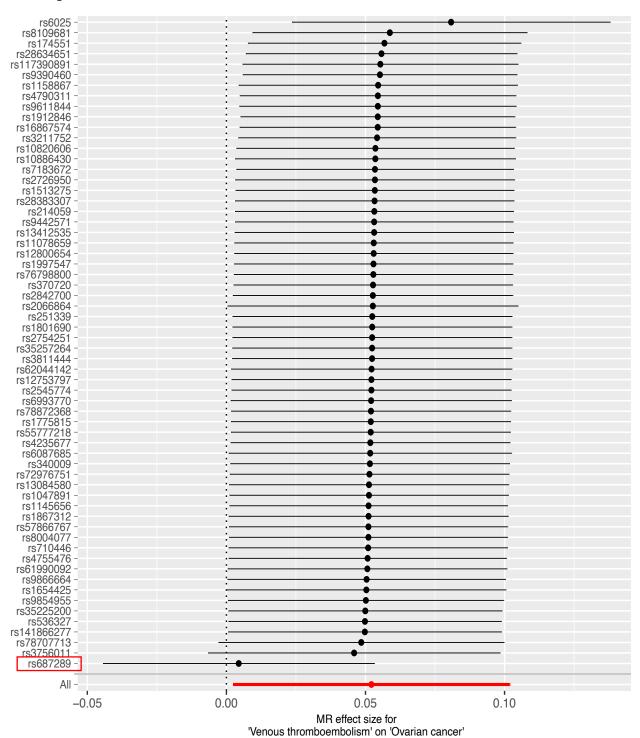


Figure S1C

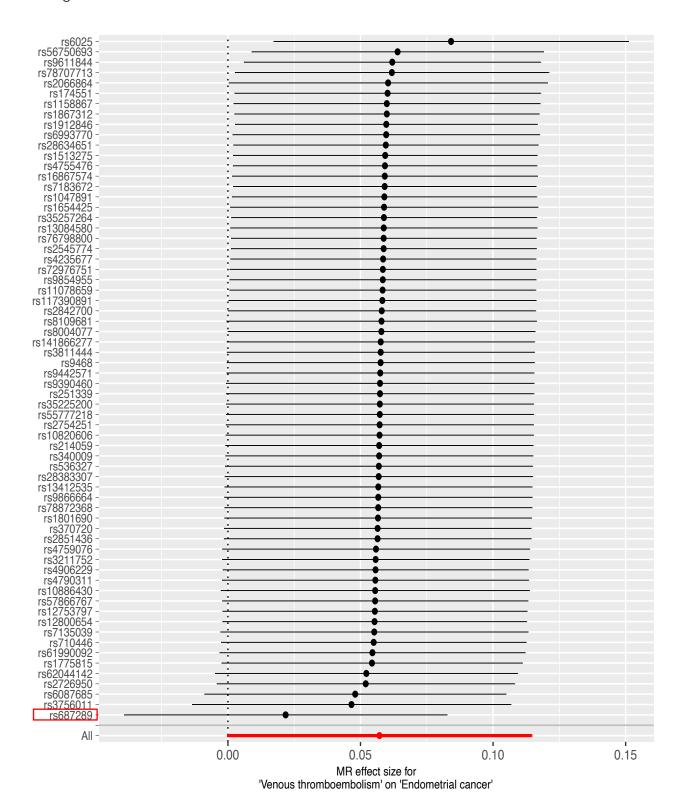
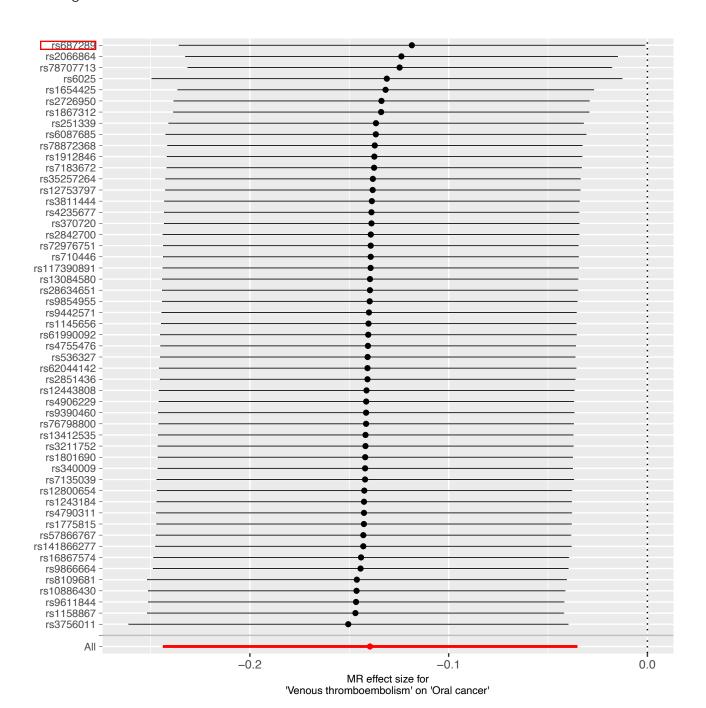
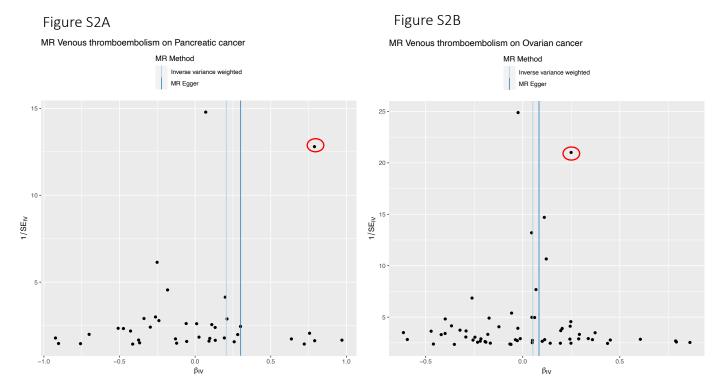
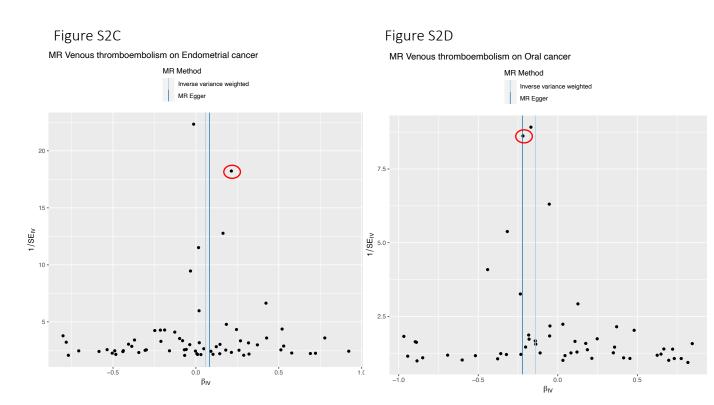


Figure S1D

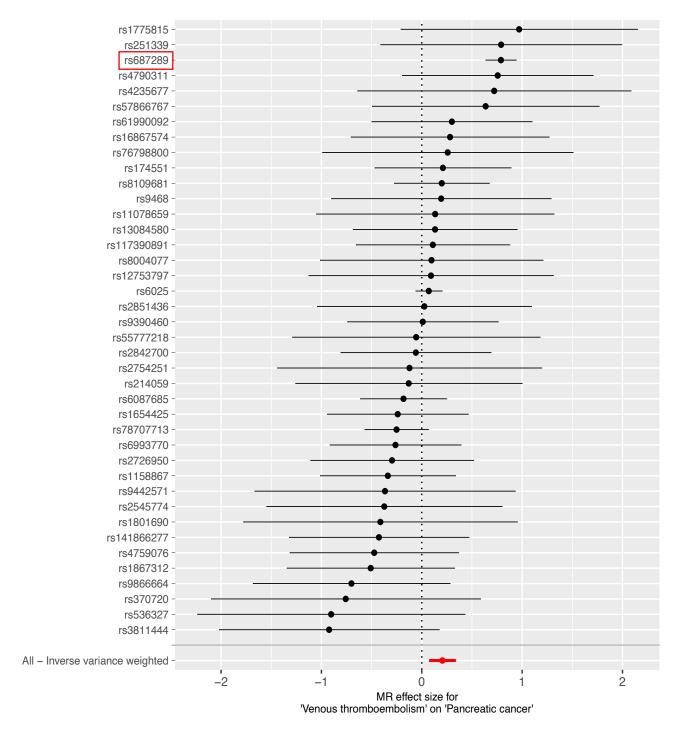






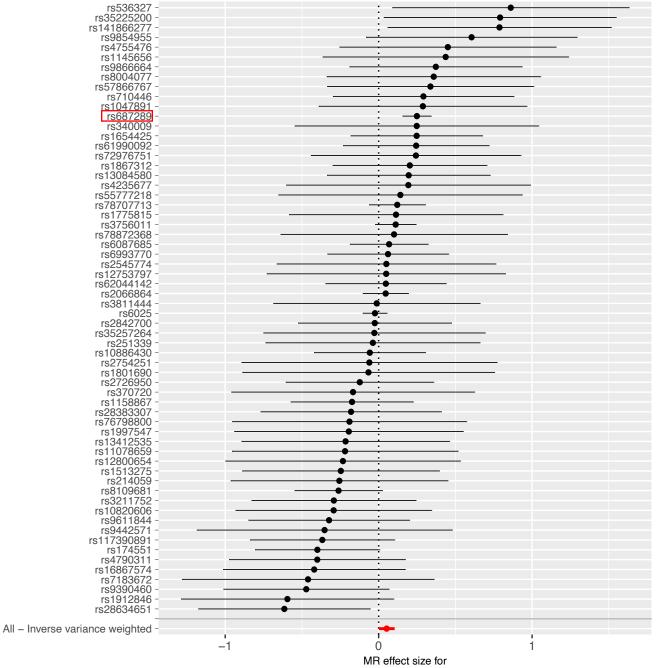
## Supplementary Figure S2:

Funnel plots for selected MR analyses of VTE (exposure) and [A] pancreatic, [B] ovarian, [C] endometrial and [D] oral cancer. The x-axis shows the MR Wald ratio effect estimate (log-OR) for each SNP (IV); the y-axis shows the inverse standard error of the effect estimate. The variant rs687289 which proxies non-O blood group is circled.

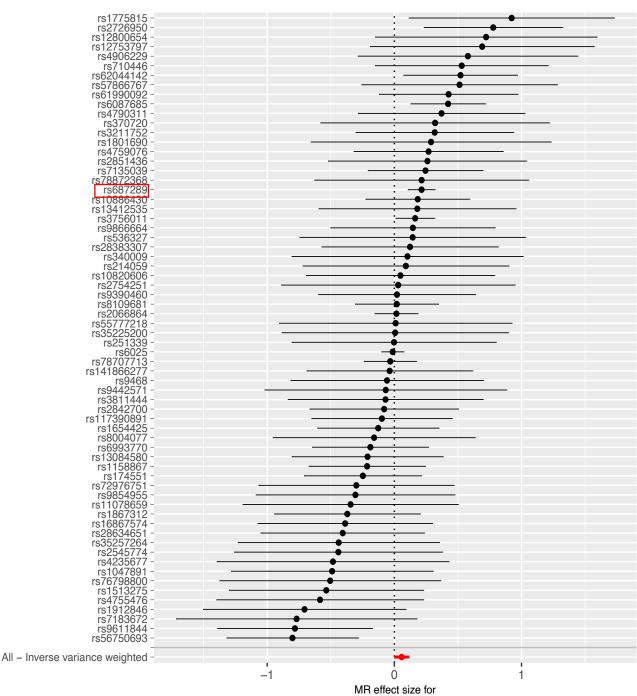


Supplementary Figure S3 [A-D]:

Single SNP plots for selected MR analyses of VTE (exposure) and [A] pancreatic, [B] ovarian, [C] endometrial and [D] oral cancer. The x-axis shows the MR Wald ratio effect estimate (expressed as log-OR) for each SNP shown on the y-axis. The variant rs687289 which proxies non-O blood group is highlighted in red.

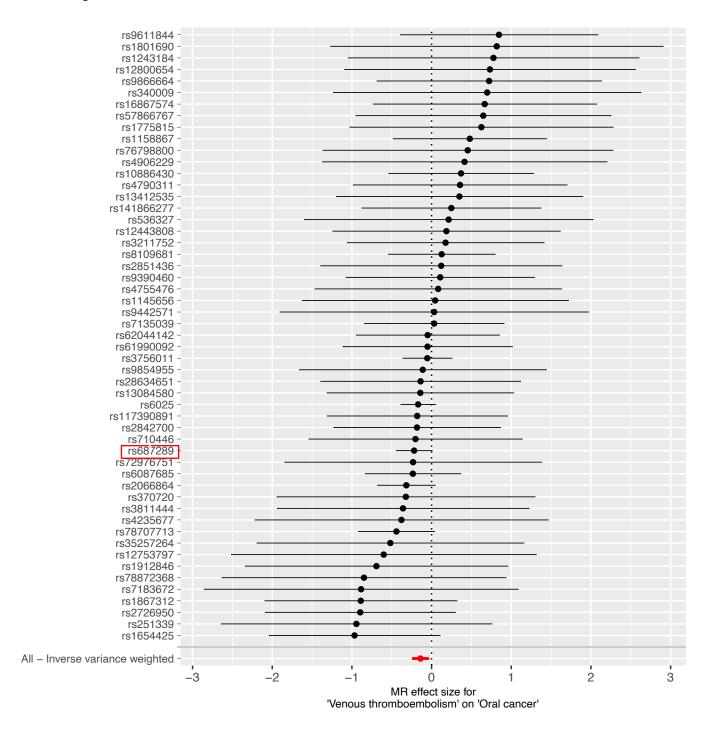


MR effect size for 'Venous thromboembolism' on 'Ovarian cancer'



'Venous thromboembolism' on 'Endometrial cancer'

Figure S3D

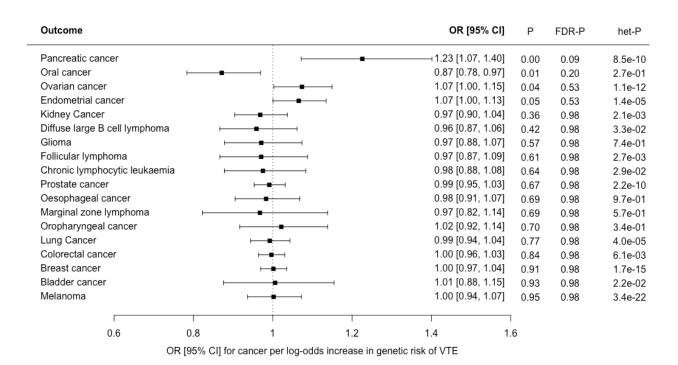


Outcome		OR [95% CI]	Р	FDR-P	het-P
Oral cancer — -		0.86 [0.77, 0.95]	0.01	0.23	8.6e-01
Pancreatic cancer		— 1.26 [1.06, 1.50]	0.01	0.23	3.5e-10
Endometrial cancer		1.08 [1.01, 1.15]	0.03	0.39	2.0e-03
Ovarian cancer		1.06 [1.00, 1.13]	0.07	0.67	1.3e-03
Kidney Cancer		0.97 [0.91, 1.04]	0.38	0.98	2.0e-01
Lung Cancer ⊢■		0.98 [0.94, 1.03]	0.48	0.99	7.6e-02
Oesophageal cancer —		0.97 [0.89, 1.06]	0.55	0.99	9.8e-01
Bladder cancer — •		0.97 [0.85, 1.10]	0.59	0.99	9.8e-01
Follicular lymphoma		0.97 [0.87, 1.08]	0.60	0.99	2.1e-01
Prostate cancer		0.99 [0.96, 1.03]	0.66	0.99	7.8e-04
Marginal zone lymphoma ⊢ ■		0.96 [0.80, 1.15]	0.67	0.99	9.7e-01
Colorectal cancer		0.99 [0.95, 1.03]	0.70	0.99	2.9e-04
Diffuse large B cell lymphoma ⊢ ■		0.98 [0.90, 1.08]	0.74	0.99	6.4e-01
Glioma ⊢		0.99 [0.89, 1.10]	0.90	0.99	9.4e-01
Breast cancer		1.00 [0.98, 1.02]	0.93	0.99	5.5e-02
Chronic lymphocytic leukaemia ⊢ ■		1.00 [0.90, 1.10]	0.93	0.99	5.2e-01
Oropharyngeal cancer —		1.00 [0.89, 1.12]	0.97	0.99	9.3e-01
Melanoma ———		1.00 [0.93, 1.07]	0.97	0.99	3.8e-10
0.6 0.8 1 1.2	1.4	1.6			
OR [95% CI] for cancer per log-odds increase in ge	netic risk of VTE				

Outcomo

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Supplementary Figure S4: Forest plot showing estimates from Mendelian randomisation inverse variance weighted estimates for VTE as an exposure, with instrumental variables restricted to replicated SNPs only, and 18 cancers as outcomes. Results are represented as the odds ratio (OR) and 95% confidence interval (CI) for each cancer per log-odds increase in genetic risk of each VTE. Nominal P values (*P*), false discovery corrected P values (*FDR-P*) and heterogeneity P values for Cochrane's Q statistic (*het-P*) are shown.



Supplementary Figure S5: Forest plot showing estimates from Mendelian randomisation inverse variance weighted estimates for VTE as an exposure, with instrumental variables including all available VTE SNPs (no Steiger-filtering applied), and 18 cancers as outcomes. Results are represented as the odds ratio (OR) and 95% confidence interval (CI) for each cancer per log-odds increase in genetic risk of each VTE. Nominal P values (*P*), false discovery corrected P values (*FDR-P*) and heterogeneity P values for Cochrane's Q statistic (*het-P*) are shown

Exposure					OR [95% CI]	Р	FDR-P	het-P
Oropharyngeal cancer	_				0.93 [0.86, 1.00]	0.05	0.29	4.1e-03
Chronic lymphocytic leukaemia	⊢ <b>=</b> ⊢				1.01 [1.00, 1.03]	0.07	0.37	6.4e-01
Kidney Cancer					1.01 [0.99, 1.03]	0.17	0.57	4.9e-01
Pancreatic cancer	-	-			→ 1.25 [0.91, 1.72]	0.18	0.57	0.0e+00
Colorectal cancer	H				1.03 [0.98, 1.09]	0.19	0.57	9.1e-30
Oesophageal cancer	<b>⊢</b>				1.02 [0.99, 1.05]	0.25	0.63	3.8e-01
Lung Cancer	<b>⊢</b>				1.02 [0.98, 1.07]	0.28	0.64	8.7e-03
Endometrial cancer					0.97 [0.90, 1.03]	0.33	0.65	1.1e-11
Melanoma	<b>⊢</b> ■				0.99 [0.96, 1.01]	0.34	0.65	1.9e-06
Follicular lymphoma					0.98 [0.94, 1.02]	0.35	0.65	2.7e-02
Ovarian cancer					1.18 [0.78, 1.79]	0.42	0.72	0.0e+00
Prostate cancer	<b>⊢=</b> ∺				0.99 [0.98, 1.01]	0.46	0.74	3.1e-08
Glioma	H=				1.01 [0.99, 1.03]	0.52	0.75	2.5e-01
Bladder cancer					0.99 [0.95, 1.03]	0.54	0.75	9.8e-01
Marginal zone lymphoma	<b>⊢</b> ■				1.01 [0.97, 1.04]	0.68	0.88	NA
Breast cancer	<b>⊢</b>				1.00 [0.97, 1.03]	0.89	1.00	6.2e-23
Oral cancer	<b>⊢</b>				1.00 [0.97, 1.02]	0.96	1.00	4.4e-01
DLBCL	<b>⊢</b>				1.00 [0.96, 1.04]	0.97	1.00	2.2e-01
	İ	1	1					
6.0	1	1.2	1.4	1.6	1.8			
	OR [95% CI] for VTE pe	er log-odds increase i	n genetic risk of cancer	r				

Supplementary Figure S6: Forest plot showing estimates from Mendelian randomisation (MR) estimates for 18 cancers as exposures, with instrumental variables including all available cancer-risk SNPs (no Steiger-filtering applied), and VTE as an outcome. The MR inverse variance weighted estimate is shown for all cancers except Marginal zone lymphoma, where the Wald ratio is shown as only a single instrumental variable was available. Results are represented as the odds ratio (OR) and 95% confidence interval (CI) for VTE per log-odds increase in genetic risk of each cancer. Nominal P values (P), false discovery corrected P values (FDR-P) and heterogeneity P values for Cochrane's Q statistic (het-P) are shown.