

SUPPLEMENTAL MATERIAL

Tables S1-S6

Figures S1-S5

Supplementary Table 1. Derivation of COVID-19 variables in the English NHS Digital TRE and Welsh SAIL Databank TRE environments.

All codelists are available in the GitHub for England: https://github.com/BHFDSC/CCU002_01/tree/main/england/phenotypes

and similarly for Wales where Read codes were used for primary care: https://github.com/BHFDSC/CCU002_01/tree/main/Wales/phenotypes

Variable	Data Sources (NHS England)	Data Sources (SAIL Databank)	Description	Variable name in analysis code
Exposure				
COVID-19 diagnosis date	SGSS, GDPPR, deaths registry, HES APC, HES CC, CHESS, SUS	PATD (Pillar 1 & 2), PEDW, WLGP	Minimum date of confirmed COVID-19 event post index date. A record of a positive COVID-19 PCR antigen test or a record of confirmed diagnosis in primary care general practice or secondary care hospital admission records.	exp_confirmed_covid19_date
COVID-19 infection severity	SGSS, GDPPR, deaths registry, HES APC, HES CC, CHESS, SUS	PATD (Pillar 1 & 2), PEDW, WLGP	COVID-19 infection with hospitalisation was defined as a hospital admission record with confirmed COVID-19 diagnosis in the primary position within 28 days of first COVID-19 infection. COVID-19 infection without hospitalisation was defined as a confirmed COVID-19 diagnosis in the primary position within 28 days of first COVID-19 infection without a hospital admission record.	exp_confirmed_covid_phenotype

Acronyms: GDPPR (General Practice Extraction Service (GPES) Data for pandemic planning and research), HES (Hospital Episode Statistics), APC (Admitted Patient Care), , ADDE (Annual District Death Extract), PEDW (Patient Episode Dataset for Wales), WLGP (Welsh Longitudinal GP Dataset - Welsh Primary Care), PATD (COVID-19 Test Results), CHESS (COVID-19 Hospitalisation in England Surveillance System), SGSS (Covid-19 Second Generation Surveillance System).

Supplementary Table 2. Derivation of major outcomes in the English NHS Digital TRE and Welsh SAIL Databank TRE environments.

All codelists are available in the GitHub for England https://github.com/BHFDSC/CCU002_01/tree/main/england/phenotypes and similarly for Wales where Read codes were used for primary care: https://github.com/BHFDSC/CCU002_01/tree/main/Wales/phenotypes

Outcome	Data Sources (NHS Digital)	Data Sources (SAIL Databank)	Description	Variable name in analysis code
Arterial thromboses				
Myocardial infarction	GDPPR, HES APC, deaths registry	WLGP, PEDW, ADDE	Earliest recorded date of primary care event or consultation, admission to hospital (coded as primary cause), or death (coded as underlying cause).	out_AMI
Ischaemic stroke	GDPPR, HES APC, deaths registry	WLGP, PEDW, ADDE	Earliest recorded date of primary care event or consultation, admission to hospital (coded as primary cause), or death (coded as underlying cause).	out_stroke_isch
Other arterial thromboembolism	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_other_arterial_embolism
Venous thromboembolic events				
Pulmonary embolism	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_PE
Lower limb deep vein thrombosis	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_DVT_DVT, out_DVT_pregnancy
Other deep vein thrombosis	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_other_DVT
Portal vein thrombosis	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_portal_vein_thrombosis
Intracranial venous thrombosis	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_ICVT, out_ICVT_pregnancy
Other vascular events				
Intracranial or subarachnoid haemorrhage	HES APC, deaths registry	PEDW, ADDE	Earliest recorded date of admission to hospital (coded as primary cause of the care episode), or death (coded as underlying cause).	out_stroke_SAH_HS
Heart failure	GDPPR, HES APC, deaths registry	WLGP, PEDW, ADDE	Earliest recorded date of primary care event or consultation, admission to hospital (coded as primary cause), or death (coded as underlying cause).	out_HF
Angina	GDPPR, HES APC, deaths registry	WLGP, PEDW, ADDE	Earliest recorded date of primary care event or consultation, admission to hospital (coded as primary cause), or death (coded as underlying cause).	out_angina
Transient ischemic attack	GDPPR, HES APC, deaths registry	WLGP, PEDW, ADDE	Earliest recorded date of primary care event or consultation, admission to hospital (coded as primary cause), or death (coded as underlying cause).	out_stroke_TIA

Acronyms: GDPPR (General Practice Extraction Service (GPES) Data for pandemic planning and research), HES (Hospital Episode Statistics), APC (Admitted Patient Care), ADDE (Annual District Death Extract), PEDW (Patient Episode Dataset for Wales), WLGP (Welsh Longitudinal GP Dataset - Welsh Primary Care), PATD (COVID-19 Test Results), CHESS (COVID-19 Hospitalisation in England Surveillance System), SGSS (Covid-19 Second Generation Surveillance System).

Supplementary Table 3: Codelist for derivation of major outcomes and COVID-19 variables in the English NHS Digital TRE

All codelists are available in the GitHub for England https://github.com/BHFDSC/CCU002_01/tree/main/england/phenotypes and similarly for Wales where Read codes were used for primary care: https://github.com/BHFDSC/CCU002_01/tree/main/Wales/phenotypes

Outcome name	Codelist	Code type
Arterial thromboses		
Acute myocardial infarction	I21, I22, I23	ICD10
Acute myocardial infarction	1755008, 10273003, 15990001, 22298006, 42531007, 52035003, 54329005, 57054005, 58612006, 62695002, 65547006, 66189004, 70211005, 70422006, 73795002, 76593002, 79009004, 129574000, 161502000, 161503005, 194802003, 194809007, 194856005, 194857001, 194858006, 194862000, 194863005, 194865003, 194866002, 194867006, 194868001, 233838001, 233843008, 233846000, 233847009, 304914007, 307140009, 308065005, 311792005, 311793000, 311796008, 314116003, 315287002, 371068009, 398274000, 399211009, 401303003, 401314000, 428752002, 698593009, 15712881000119105, 15712921000119103, 233825009, 233826005, 233832000, 285991000119100, 394659003, 394710008, 428196007, 703213009, 1089471000000109, 12238151000119107, 233827001, 233828006, 233829003, 233830008, 233831007, 233833005, 233834004, 233835003, 314207007, 703164000, 703209002, 703211006, 703360004	SNOMED
Ischaemic stroke	G95.1, I63.1, I63.8, I63.3, I64, I63.4, I63.2, I63.9, I63.5, I63.0, H34	ICD10
Ischaemic stroke	71444005, 75543006, 78569004, 95457000, 95460007, 195185009, 195186005, 195189003, 195190007, 195200006, 195201005, 195209007, 195210002, 195211003, 230691006, 230692004, 230698000, 230699008, 230700009, 307766002, 307767006, 373606000, 413102000, 432504007, 724424009, 125081000119106, 140921000119102, 1089421000000105, 16000511000119103, 16002031000119102, 16002111000119106, 195230003, 20059004, 230693009, 230696001, 230701008, 307363008, 329641000119104, 371041009, 734383005, 87555007, 1089411000000104, 195213000, 230694003, 230695002, 230702001, 230703006, 230704000, 24654003, 25133001, 276219001, 276220007, 276221006, 276222004, 413758000, 426107000, 734384004, 90099008, 195212005, 195213000, 195216008, 195217004, 230690007, 275434003, 16371781000119100, 195209007, 195210002, 195211003, 230706003, 230708002, 281240008, 297138001, 444172003, 230707007, 230713003, 230714009, 230715005	SNOMED
Other arterial embolism	I74	ICD10
Venous thromboembolic events		
Pulmonary embolism	I26.9, I26.0	ICD10
Lower limb deep vein thrombosis	I80, O87.1, O87.9, O88.2, O22.3	ICD10
Other deep vein thrombosis	I82.3, I82.2, I82.9, I82.0, I82.8	ICD10

Portal vein thrombosis	I81	ICD10
Intracranial venous thrombosis	I67.6, G08, I63.6, O87.3, O22.5	ICD10
Other vascular events		
Heart failure	I13.2, I13.0, I11.0, I50	ICD10
Heart failure	717491000000102, 420300004, 430396006, 703272007, 446221000, 233924009, 10335000, 194767001, 83105008, 426611007, 275514001, 134440006, 314206003, 92506005, 43736008, 10633002, 88805009, 87837008, 195114002, 206586007, 56675007, 85232009, 426263006, 194781004, 194779001, 421704003, 407596008, 420913000, 422293003, 698592004, 134401001, 48447003, 367363000, 42343007, 79955004, 128404006, 195112003, 760361000000100, 195111005, 71892000, 84114007	SNOMED
Angina	I20	ICD10
Angina	15960581000119102, 10971000087107, 300995000, 414545008, 697976003, 413439005, 394659003, 371810009, 713405002, 315025001, 25106000, 314116003, 414795007, 225566008, 85284003, 233821000, 87343002, 89323001, 371807002, 61490001, 35928006, 429559004, 233819005, 59021001, 41334000, 19057007, 194828000, 371812001, 15960381000119109, 15960061000119102, 15960141000119102, 712866001, 791000119109, 371811008, 371809004, 703214003, 413838009, 194823009, 413844008, 233823002, 413444003, 46109009, 4557003, 371806006, 15960661000119107, 371808007, 21470009	SNOMED
Subarachnoid haemorrhage and haemorrhagic stroke	I60, I61	ICD10
Confirmed COVID-19	U07.1	ICD10
Confirmed COVID-19	1321211000000109, 1321341000000103, 1321801000000108, 1321811000000105, 1240511000000106, 1240571000000101, 1321241000000105, 1321551000000106, 1240581000000104, 1240401000000105, 1240391000000107, 1300681000000102, 1029481000000103, 1300631000000101, 1300671000000104, 121973000, 120814005, 1240381000000105, 1321191000000105, 1300721000000109, 1240541000000107, 1322781000000102, 1240751000000100, 1240561000000108, 1321541000000108, 1321181000000108, 1321321000000105, 1321761000000103, 1240411000000107, 1240741000000103, 1008541000000105, 186747009, 1321201000000107, 1300731000000106, 1321331000000107, 1321351000000100, 1321301000000101, 1321311000000104, 1322871000000109, 1240521000000100, 1240531000000103, 1240551000000105, 1240421000000101	SNOMED

Supplementary Table 4. Derivation of covariates in the English NHS Digital TRE and Welsh SAIL Databank TRE environments.

All codelists are available in the GitHub for England: github.com/BHFDC/CCU002_01/tree/main/england/phenotypes

and similarly for Wales where Read codes were used for primary care: https://github.com/BHFDC/CCU002_01/tree/main/Wales/phenotypes

Variable	Data Sources (NHS England)	Data Sources (SAIL Databank)	Description	Variable name in analysis code
Demographic characteristics				
Patient pseudoidentifier	All	All	Patient pseudoidentifier	NHS_NUMBER_DEID
death date	GDPPR, HES APC, deaths registry	C19_Cohort20 (WSD, ADDE, ADDD, CDDS)	Earliest date of death recorded in specified data sources	death_date
sex	GDPPR, HES APC, HES OP, HES AE	C19_Cohort20 (WSD)	Binary indicator for male or female (most recent record prior to index date and will initially select from primary care if possible)	cov_sex
age	GDPPR, HES APC, HES OP, HES AE	C19_Cohort20 (WSD)	Age in years calculated on index date (will initially select from primary care if possible)	cov_age
ethnicity	GDPPR, HES APC, HES OP, HES AE	CCDS, CVVD, EDDS, ICNC, MIDS, NCCH, OPRD, PEDW, WASD	Patient ethnicity (most recent record prior to index date from primary care - Black or Black British, Asian or Asian British, Other, Mixed, Missing, Unknown)	cov_ethncity
smoking status	GDPPR	WLGP	Most recent smoking status (Smoker, Ex-smoker, Never-smoker) prior to index date	cov_smoking_status
deprivation	English indices of deprivation year 2019	C19_Cohort20 (WSD, PEDW)	Most recent decile of deprivation prior to index date, defined using IMD	cov_deprivation
region of residence	English indices of deprivation year 2019	N/A	Most recent residence prior to index date (East of England, London, Midlands, NE and Yorkshire, North West, South East, South West, Scotland, Wales)	cov_region
Medications				
antiplatelet	primary care medications	WDDS	Binary indicator for antiplatelet medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_antiplatelet_meds
lipid lowering	primary care medications	WDDS	Binary indicator for lipid lowering medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_lipid_meds
anticoagulation	primary care medications	WDDS	Binary indicator for anticoagulation medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_anticoagulation_meds
combined oral contraceptive pill	primary care medications	WDDS	Binary indicator for COCP medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_cocp_meds
blood pressure lowering	primary care medications	WDDS	Binary indicator for bp lowering medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_ever_icvt
hormone replacement therapy	primary care medications	WDDS	Binary indicator for HRT medication with at least one prescription within 3 months prior to index date, defined using drug use	cov_hrt_meds

Variable	Data Sources (NHS England)	Data Sources (SAIL Databank)	Description	Variable name in analysis code
Past history of disease				
acute myocardial infection	GDPPR, HES APC	WLGP, PEDW	Binary indicator for acute myocardial infarction prior to index date, defined using condition diagnosis code only	cov_ever_ami
embolism	GDPPR, HES APC	WLGP, PEDW	Binary indicator for pulmonary embolism or DVT prior to index date, defined using condition diagnosis code only	cov_ever_pe_vt
intracranial venous thrombosis	GDPPR, HES APC	WLGP, PEDW	Binary indicator for ICVT prior to index date, defined using condition diagnosis code only	cov_ever_icvt
any stroke	GDPPR, HES APC	WLGP, PEDW	Binary indicator for stroke (ischaemic stroke, intracranial haemorrhage, or stroke of unknown type) prior to index date, defined using condition diagnosis code only	cov_ever_all_stroke
thrombophilia	GDPPR, HES APC	WLGP, PEDW	Binary indicator for thrombophilia prior to index date, defined using condition diagnosis code only	cov_ever_thrombophilia
thrombocytopenia, TTP	GDPPR, HES APC	WLGP, PEDW	Binary indicator for thrombocytopenia prior to index date, defined using condition diagnosis code only	cov_ever_tcp
dementia	GDPPR, HES APC	WLGP, PEDW	Binary indicator for dementia prior to index date, defined using condition diagnosis code only	cov_ever_dementia
liver disease	GDPPR, HES APC	WLGP, PEDW	Binary indicator for liver disease prior to index date, defined using condition diagnosis code only	cov_ever_liver_disease
chronic kidney disease	GDPPR, HES APC	WLGP, PEDW	Binary indicator for chronic kidney disease prior to index date, defined using condition diagnosis code only	cov_ever_ckd
cancer	GDPPR, HES APC	WLGP, PEDW	Binary indicator for cancer prior to index date, defined using condition diagnosis code only	cov_ever_cancer
hypertension	GDPPR, HES APC, primary care medications	WLGP, PEDW, WDDS	Binary indicator for hypertension prior to index date, defined using either condition diagnosis code or drug use	cov_ever_hypertension
diabetes	GDPPR, HES APC, primary care medications	WLGP, PEDW, WDDS	Binary indicator for diabetes prior to index date, defined using either condition diagnosis code or drug use	cov_ever_diabetes
obesity	GDPPR, HES APC	WLGP, PEDW	Binary indicator for obesity prior to index date, defined using either condition diagnosis code code or measurement	cov_ever_obesity
depression	GDPPR, HES APC	WLGP, PEDW	Binary indicator for depression prior to index date, defined using condition diagnosis code only	cov_ever_depression
COPD	GDPPR, HES APC	WLGP, PEDW	Binary indicator for chronic obstructive pulmonary disease prior to index date, defined using condition diagnosis code only	cov_ever_copd
number of unique disorders	GDPPR	WLGP	Number of consultations for different ailments/conditions/diseases in the year prior to index date	cov_n_disorder

Variable	Data Sources (NHS England)	Data Sources (SAIL Databank)	Description	Variable name in analysis code
disseminated intravascular coagulation	GDPPR, HES APC	WLGP, PEDW	Binary indicator for disseminated intravascular coagulation prior to index date, defined using condition diagnosis code only	cov_ever_other_arterial_embolism
mesenteric thrombus	GDPPR, HES APC	WLGP, PEDW	Binary indicator for mesenteric thrombus prior to index date, defined using condition diagnosis code only	cov_ever_dic
artery dissection	GDPPR, HES APC	WLGP, PEDW	Binary indicator for artery dissection prior to index date, defined using condition diagnosis code only	cov_ever_mesenteric_thrombus
life threatening arrhythmias	GDPPR, HES APC	WLGP, PEDW	Binary indicator for life threatening arrhythmias prior to index date, defined using condition diagnosis code only	cov_ever_artery_dissect
cardiomyopathy	GDPPR, HES APC	WLGP, PEDW	Binary indicator for cardiomyopathy prior to index date, defined using condition diagnosis code only	cov_ever_life_arrhythmia
heart failure	GDPPR, HES APC	WLGP, PEDW	Binary indicator for heart failure prior to index date, defined using condition diagnosis code only	cov_ever_cardiomyopathy
pericarditis	GDPPR, HES APC	WLGP, PEDW	Binary indicator for pericarditis prior to index date, defined using condition diagnosis code only	cov_ever_hf
myocarditis	GDPPR, HES APC	WLGP, PEDW	Binary indicator for myocarditis prior to index date, defined using condition diagnosis code only	cov_ever_pericarditis
major surgery in the last year	HES APC	PEDW	Binary indicator for major surgery within a year prior to index date, defined using condition diagnosis code only	cov_ever_myocarditis

Acronyms: GDPPR (General Practice Extraction Service (GPES) Data for Pandemic Planning and Research), HES (Hospital Episode Statistics), APC (Admitted Patient Care), AE (Accident and Emergency), WDS (Welsh Demographic Service Dataset), ADDE (Annual District Death Extract), ADDD (Annual District Death Daily), CDDS (COVID-19 Consolidated Deaths), CCDS (Critical Care Dataset), CVVD (Covid Vaccination Dataset), EDDS (Emergency Department Dataset), ICNC (Intensive Care National Audit and Research Centre - Covid19), MIDS (Maternity Indicators Dataset), NCCH (National Community Child Health), OPRD (Outpatient Referral), PEDW (Patient Episode Dataset for Wales), WASD (Welsh Ambulance Services NHS Trust), WLGP (Welsh Longitudinal GP Dataset - Welsh Primary Care), WDDS (Welsh Dispensing Dataset).

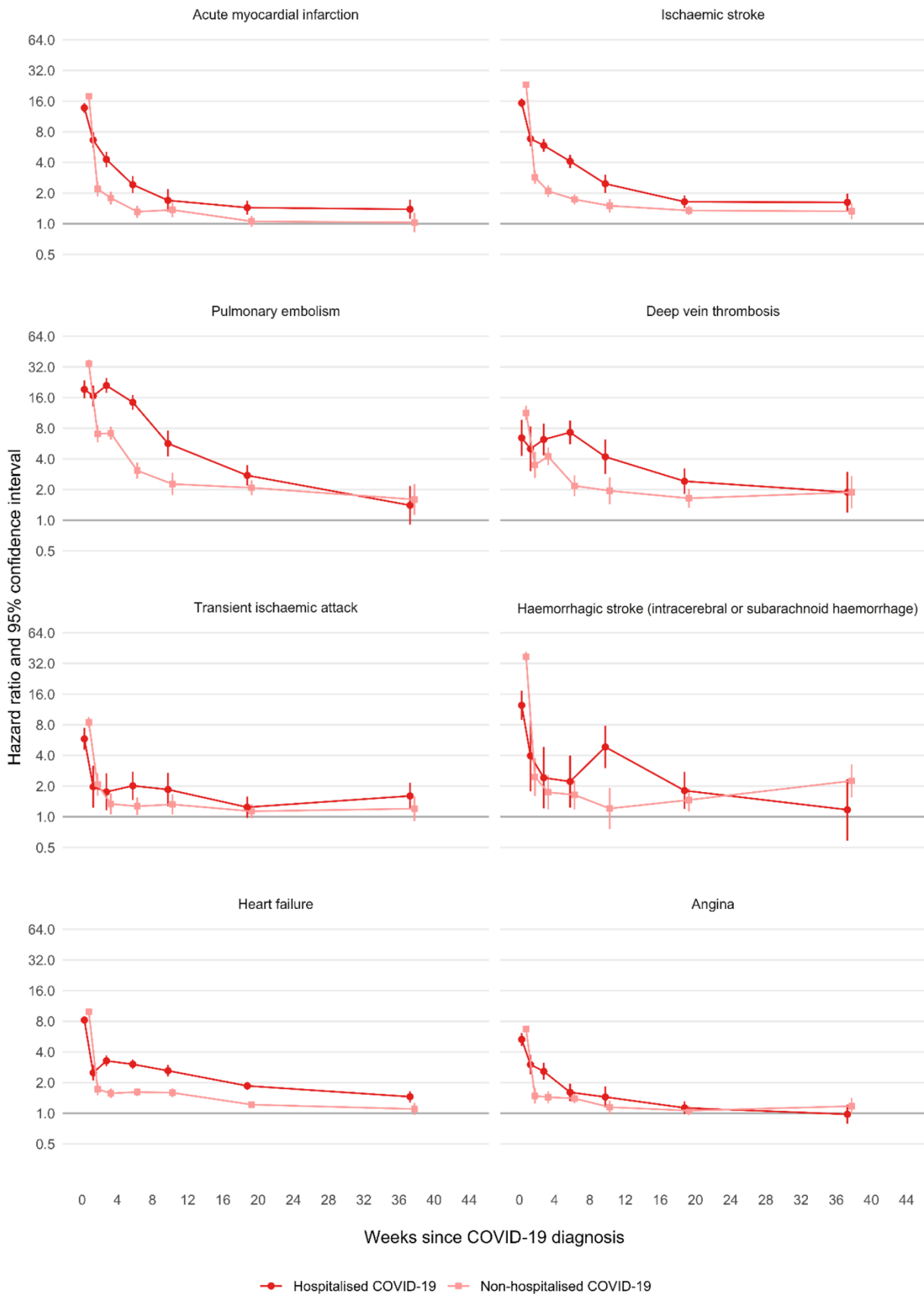
Supplementary Table 5. Number of patients analysed in the Welsh SAIL Databank and the number of people (risk per 100,000 during follow up) who were and were not hospitalised within 28 days of diagnosis of COVID-19.

Characteristic	All	Diagnosed with COVID-19	
		Hospitalised N (per 100,000)	Non-hospitalised N (per 100,000)
All	2,615,854	7,106 (272)	71,606 (2,737)
Sex			
Male	1,297,835	3,778 (292)	30,312 (2,336)
Female	1,318,019	3,328 (253)	41,294 (3,133)
Age in decades			
18-29	480,469	128 (26.6)	18,090 (3765)
30-39	416,949	241 (57.8)	13,063 (3133)
40-49	395,769	522 (132)	12,904 (3261)
50-59	458,144	880 (192)	13,312 (2906)
60-69	379,682	1,095 (288)	6,081 (1602)
70-79	309,639	1,737 (561)	3,690 (1192)
80-89	144,208	1,881 (1304)	3,163 (2193)
90+	30,994	622 (2007)	1,303 (4204)
Ethnicity			
Asian or Asian British	42,731	123 (288)	1,689 (3953)
Black or Black British	11,921	22 (185)	414 (3473)
Missing	489,772	593 (121)	11,479 (2344)
Mixed	76,114	323 (424)	2,475 (3252)
Other Ethnic Groups	15,174	36 (237)	435 (2867)
White	1,980,142	6,009 (304)	55,114 (2783)
Index of Multiple Deprivation			
1 (most deprived)	494,007	1,120 (227)	12,459 (2522)
2	489,758	1,098 (224)	10,886 (2223)
3	492,736	1,158 (235)	11,788 (2392)
4	485,216	1,562 (322)	15,680 (3232)
5 (least deprived)	478,180	1,758 (368)	15,999 (3346)
Missing	175,957	410 (233)	4,794 (2725)
Smoking status			
Current	560,828	1,087 (194)	12,399 (2211)
Former	160,367	903 (563)	3,869 (2413)
Missing	512,977	1,121 (219)	10,795 (2104)
Never	1,381,682	3,995 (289)	44,543 (3224)
Medical history			
Arterial thrombosis	120,085	1,536 (1,279)	2,937 (2446)
Venous thromboembolism	38,072	449 (1179)	1,033 (2713)
Number of medications			
0	1,079,900	730 (67.6)	28,924 (2678)
1-5	1,367,052	4,060 (297)	37,944 (2,776)
6+	168,902	2,316 (1371)	4,738 (2805)
Number of diagnoses			
0	2,219,689	3,969 (179)	61,083 (2,752)
1-5	248,262	2,091 (842)	6,974 (2,809)
6+	147,903	1,046 (707)	3,549 (2,400)

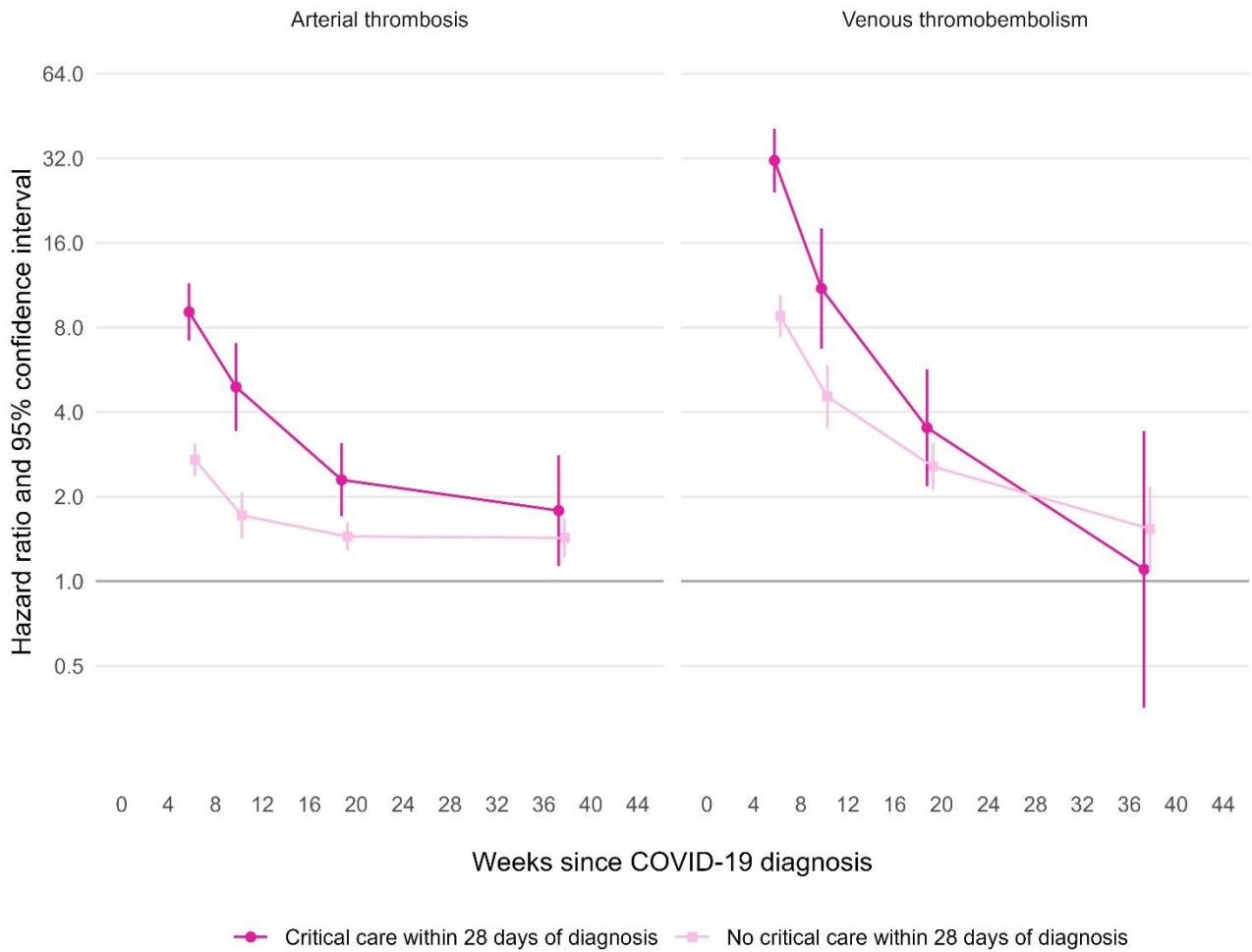
Supplementary Table 6. Hazard ratios (95% CI) compared with no COVID-19 for first arterial thrombosis and first venous thromboembolism, according to time since diagnosis of COVID-19. All results are maximally adjusted.

	Weeks since COVID-19 diagnosis						
	1	2	3-4	5-8	9-12	13-26	27-49
Arterial thrombosis							
Critical care within 28 days of diagnosis	-	-	-	9.09 (7.19-11.5)	4.91 (3.43-7.04)	2.30 (1.70-3.09)	1.79 (1.14-2.81)
No critical care within 28 days of diagnosis	-	-	-	2.71 (2.37-3.09)	1.71 (1.42-2.07)	1.44 (1.29-1.62)	1.43 (1.22-1.67)
Fatal event	18.6 (17.3-20.2)	6.26 (5.43-7.22)	3.95 (3.44-4.54)	2.32 (2.00-2.70)	1.87 (1.54-2.26)	1.82 (1.62-2.05)	1.40 (1.13-1.75)
Non-fatal event	20.0 (19.2-20.7)	3.11 (2.81-3.43)	2.44 (2.24-2.66)	1.85 (1.71-2.00)	1.50 (1.35-1.66)	1.19 (1.11-1.28)	1.29 (1.15-1.45)
Venous thromboembolism							
Critical care within 28 days of diagnosis	-	-	-	31.4 (24.2-40.8)	11.0 (6.73-18.0)	3.52 (2.18-5.67)	1.10 (0.36-3.42)
No critical care within 28 days of diagnosis	-	-	-	8.78 (7.41-10.4)	4.54 (3.51-5.89)	2.56 (2.11-3.11)	1.54 (1.09-2.17)
Fatal event	21.1 (17.3-25.7)	6.64 (4.60-9.58)	5.00 (3.61-6.93)	2.68 (1.85-3.87)	2.42 (1.54-3.82)	2.05 (1.52-2.77)	0.72 (0.32-1.61)
Non-fatal event	22.5 (20.9-24.2)	6.78 (5.90-7.78)	7.78 (7.07-8.56)	4.39 (3.95-4.87)	2.91 (2.50-3.40)	2.13 (1.91-2.38)	1.82 (1.48-2.23)

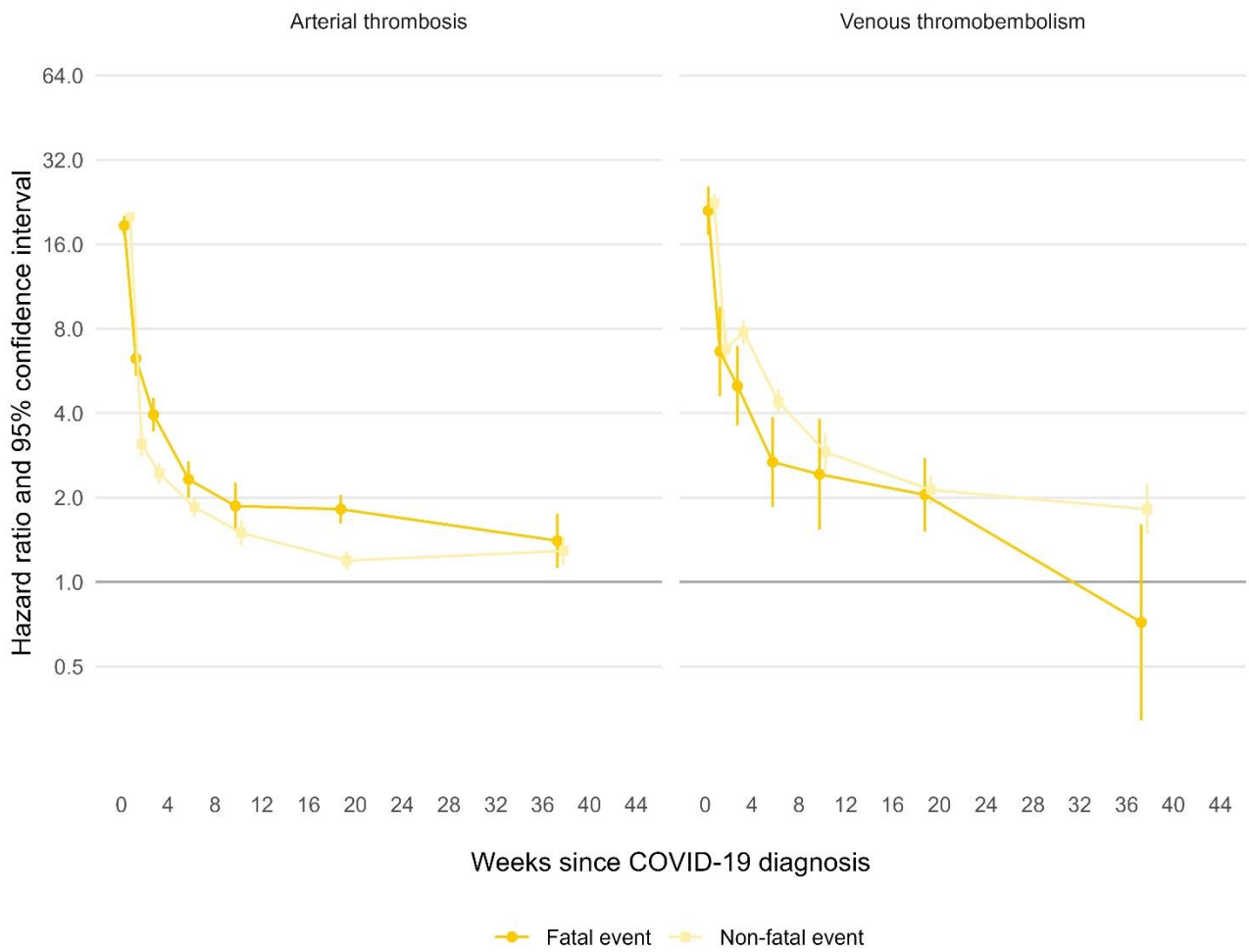
Supplementary Figure 1. Maximally adjusted hazard ratios (log scale) for different arterial thrombotic, and venous thromboembolic and other vascular events by time since diagnosis of COVID-19, separately for hospitalised and non-hospitalised COVID-19.



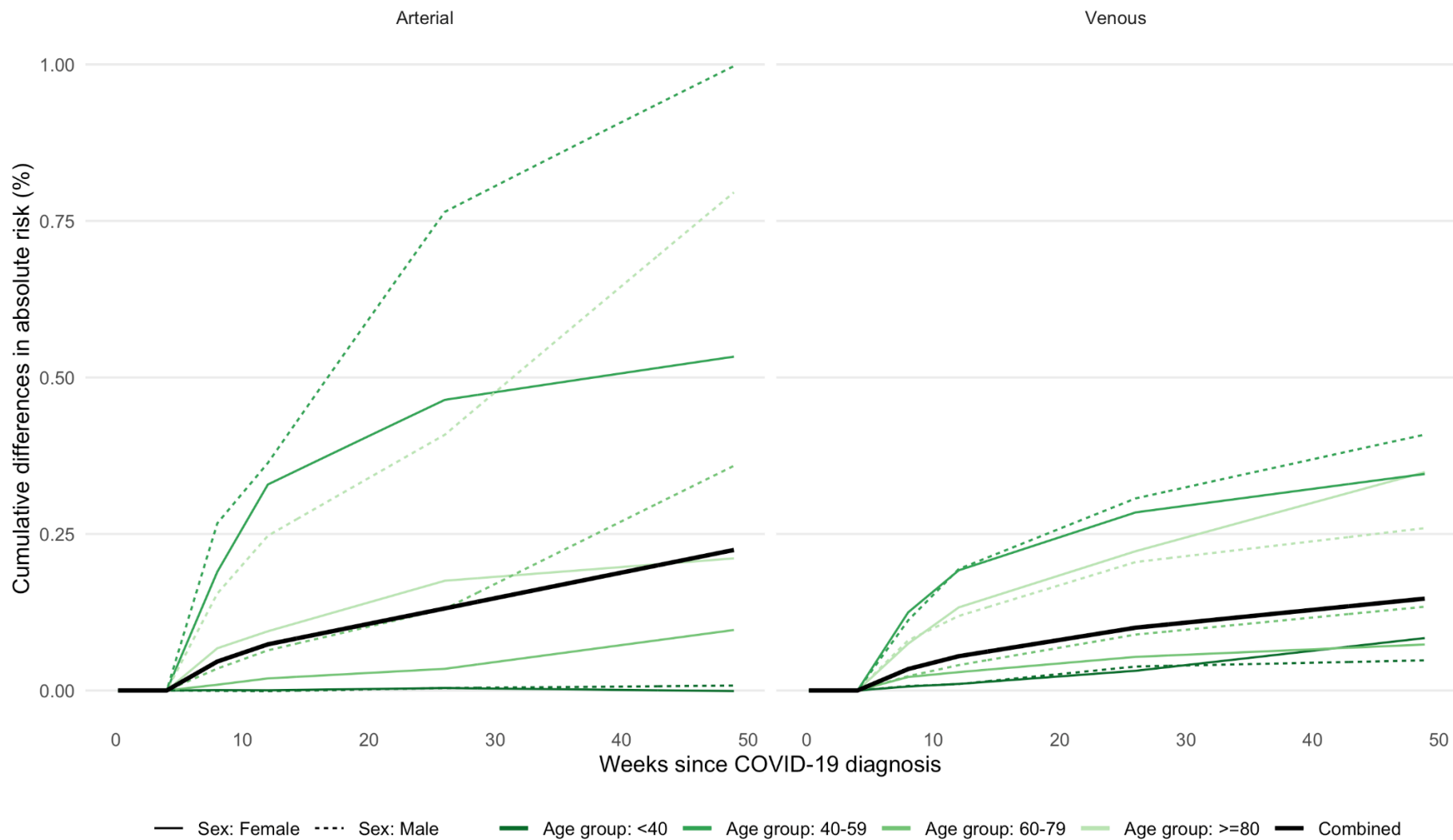
Supplementary Figure 2. Maximally adjusted hazard ratios (log scale) for first arterial thrombosis and first venous thromboembolism by time since diagnosis of COVID-19, separately for those who received critical care for COVID-19 within 28 days of diagnosis and those who did not receive critical care for COVID-19 within 28 days of diagnosis.



Supplementary Figure 3. Maximally adjusted hazard ratios (log scale) for first arterial thrombosis and first venous thromboembolism different by time since diagnosis of COVID-19, separately for fatal and non-fatal events.



Supplementary Figure 4. Estimated absolute increase in risk of arterial thromboses and venous thromboembolisms over time since diagnosis of COVID-19, compared with no COVID-19 diagnosis, after excluding the risk during the first 28 days since diagnosis



Supplementary Figure 5. Estimated absolute increase in risk of arterial thromboses and venous thromboembolisms over time since diagnosis of COVID-19, compared with no COVID-19 diagnosis, stratified by those with hospitalised COVID-19 and non-hospitalised COVID-19.

