

## Disclaimer

The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

If you are using a web page screen reader and are unable to access this document, please contact the Sentinel Operations Center for assistance at [info@sentinelssystem.org](mailto:info@sentinelssystem.org).

## Overview for Request: cder\_mpl2p\_wp042

**Request ID:** cder\_mpl2p\_wp042

**Request Description:** In this report, we identified individuals with COVID-19 in the ambulatory and inpatient settings and examined inpatient arterial thrombotic events and inpatient venous thrombotic events among those individuals, as well as all-cause mortality following an inpatient thrombotic event. This analysis was conducted as a follow-up to the study described here ([https://www.sentinelinitiative.org/sites/default/files/documents/Coagulopathy\\_COVID19\\_Study\\_Synopsis\\_v2.0\\_0.pdf](https://www.sentinelinitiative.org/sites/default/files/documents/Coagulopathy_COVID19_Study_Synopsis_v2.0_0.pdf)). It is anticipated that these results will be used in an analysis with international collaborators.

**Sentinel Routine Querying Module:** Cohort Identification and Descriptive Analysis (CIDA) module, version 10.3.0, with custom programming

**Data Source:** We distributed this request to six Sentinel Data Partners on January 10, 2023. The study period included data from April 1, 2020 through May 4, 2022.

**Study Design:** We identified individuals who were at least 18 years of age with incident COVID-19 in either the inpatient care setting or the ambulatory care setting in the time prior to COVID-vaccine availability (March 2020 - November 2020) and the time after COVID-vaccine availability (December 2020 - December 2021), separately. We then identified inpatient arterial thrombotic events and inpatient venous thrombotic events separately, within 90 days after COVID-19. Among those with either an inpatient arterial or venous thrombotic event, we evaluated all-cause mortality within 30 days after the thrombotic event. Individuals with a diagnosis code for influenza or other respiratory virus within 14 days of COVID-19 were excluded. This is a Type 2 analysis in the Query Request Package (QRP) documentation. All of the code lists for this work have been published previously: [https://jamanetwork.com/journals/jama/fullarticle/2795268?utm\\_campaign=articlePDF&utm\\_medium=articlePDFlink&utm\\_source=articlePDF&utm\\_content=jama.2022.13072#supplemental-tab](https://jamanetwork.com/journals/jama/fullarticle/2795268?utm_campaign=articlePDF&utm_medium=articlePDFlink&utm_source=articlePDF&utm_content=jama.2022.13072#supplemental-tab).

**COVID-19:** We defined COVID-19 by presence of an International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) code of U07.1 or a positive result for a SARS-COV-2 nucleic acid amplification (NAAT) test. Only the first qualifying (index) COVID-19 diagnosis or test was included; cohort re-entry was not allowed within a time period. However, an individual could be included in the pre-COVID-vaccine availability period and also the post-COVID-vaccine availability period.

**Outcomes of Interest:** We defined the outcomes of interest as arterial thrombotic events (i.e., myocardial infarction and stroke), and venous thrombotic events (i.e., deep venous thrombosis and pulmonary embolism).

**Cohort Eligibility Criteria:** We required members to be enrolled in health plans with medical and drug coverage in the 365 days prior to their index date; a gap in coverage of up to 45 days was allowed and treated as continuous enrollment. We excluded patients with either a positive NAAT test for influenza or an ICD-10-CM diagnosis code for influenza or other respiratory virus (e.g., parainfluenza, adenovirus, respiratory syncytial virus, rhinovirus, human metapneumovirus) within 14 days prior to or following the index date.

**Follow-up Time:** Follow-up time began on the day of the index COVID-19 diagnosis or positive NAAT test and continued until the first occurrence of any of the following: 1) disenrollment from health plan coverage; 2) death; 3) occurrence of the outcome; 4) influenza diagnosis or positive NAAT; 5) end of the 90 day follow up time.

**Baseline Characteristics:** We assessed the following characteristics in the 365 days prior to the index date of COVID-19: age, sex, number of hospital encounters, number of ambulatory encounters, atrial fibrillation/flutter, cancer, cardiovascular disease, chronic obstructive pulmonary disease, diabetes mellitus, heart failure, hyperlipidemia, hypertension, neurological disease, and prior venous thromboembolism. We assessed dispensings of anticoagulants and of antiplatelets in the 183 days up to three days prior to the index date of COVID-19. ICD-10-CM codes, International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) codes, Healthcare Common Procedure Coding System (HCPCS) codes, and Current Procedural Terminology, Fourth Edition (CPT-4) codes were used to define baseline characteristics.

**Overview for Request: cder\_mpl2p\_wp042**

**Limitations:** Algorithms used to define events, outcomes, exclusion criteria, and covariates are imperfect and may be misclassified. Data should be interpreted with this limitation in mind.

**Notes:** Please contact the Sentinel Operations Center ([info@sentinel-system.org](mailto:info@sentinel-system.org)) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel's routine querying modules, please refer to the documentation (<https://dev.sentinel-system.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>).

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**Glossary of Terms for Analyses Using  
Cohort Identification and Descriptive Analysis (CIDA) Module\***

**Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

**Blackout Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

**Care Setting** - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

**Ambulatory Visit (AV)** - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

**Emergency Department (ED)** - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

**Inpatient Hospital Stay (IP)** - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

**Non-Acute Institutional Stay (IS)** - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

**Other Ambulatory Visit (OA)** - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

**Charlson/Elixhauser Combined Comorbidity Score** - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

**Code Days** - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.

**Cohort Definition (drug/exposure)** - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

**Computed Start Marketing Date** - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.

**Days Supplied** - number of days supplied for all dispensings in qualifying treatment episodes.

**Eligible Members** - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

**Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

**Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

**Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

**Event Deduplication** - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

**Exposure Episode Length** - number of days after exposure initiation that is considered "exposed time."

**Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

**Lookback Period** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

**Maximum Episode Duration** - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Member-Years** - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

**Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered.

**Minimum Episode Duration** - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Monitoring Period** - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

**Principal Diagnosis (PDX)** - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

**Query Period** - period in which the modular program looks for exposures and outcomes of interest.

**Switch Evaluation Step Value** - value used to differentiate evaluation step. Each switch pattern can support up to 2 evaluation steps (0 = switch pattern evaluation start; 1 = first evaluation; 2 = second evaluation).

**Switch Gap Inclusion Indicator** - indicator for whether gaps in treatment episodes that are included in a switch episode will be counted as part of the switch episode duration.

**Switch Pattern** - specified sequence of drug use within the same patient. Switch patterns can characterize single switches (Drug A to Drug B), switch-backs (Drug A to Drug B to Drug A), and switch-aways (Drug A to Drug B to Drug C).

**Switch Pattern Cohort** - collection of treatment episodes meeting a given set of inclusion/exclusion criteria.

**Switch Pattern Cohort Inclusion Date** - indicates which date to use for inclusion into the switch pattern cohort of interest as well as optionally as the index date of the treatment episode initiating the switch pattern. Valid options are the product approval date, product marketing date, other requester defined date, or computed start marketing date.

**Switch Pattern Cohort Inclusion Strategy** - indicates how the switch pattern cohort inclusion date will be used: 01: used only as a switch cohort entry date. First treatment episode dispensing date is used as index for computing time to first switch; 02: used as switch cohort entry date and as initial switch step index date for computing time to first switch.

**Switch Pattern Episode** - eligible treatment episode evaluated for one of the switch patterns of interest which ended in a switch.

**Treatment Episode Truncation Indicator** - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

**Washout Period (drug/exposure)** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

**Washout Period (event/outcome)** - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

**Years at Risk** - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

\*all terms may not be used in this report

**Table 1a. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Pre-Vaccine Era**

Characteristic	Number	Percent
<b>Total Patients</b>	41,443	100%
<b>Demographics:</b>	<b>Mean</b>	<b>Standard Deviation</b>
Age (years)	72.3	13.1
	<b>Median</b>	60.2-75.2
	<b>Number</b>	<b>Percent</b>
18-44	2,032	4.9%
45-54	2,186	5.3%
55-64	5,161	12.5%
65-74	12,889	31.1%
75-84	12,649	30.5%
85+	6,526	15.7%
<b>Sex</b>		
Male	20,890	50.4%
Female	20,553	49.6%
<b>Month of COVID-19 Diagnosis:</b>		
2020		
April	5,676	13.7%
May	2,960	7.1%
June	3,052	7.4%
July	6,193	14.9%
August	4,110	9.9%
September	3,130	7.6%
October	5,449	13.1%
November	10,873	26.2%
<b>Recent Encounters (prior 365 days):</b>	<b>Mean</b>	<b>Standard Deviation</b>
Number of Hospital Encounters	0.7	1.3
Number of Ambulatory Encounters	8.4	18.3
<b>Recent Diagnosis History (prior 365 days):</b>	<b>Number</b>	<b>Percent</b>
Atrial Fibrillation/Flutter	12,435	30.0%
Cancer	10,982	26.5%
Cardiovascular Disease (prior)	23,325	56.3%
Chronic Kidney Disease	21,151	51.0%
Chronic Obstructive Pulmonary Disease	15,012	36.2%
Diabetes Mellitus (any type)	21,775	52.5%
Heart Failure	15,560	37.5%
Hyperlipidemia	31,740	76.6%
Hypertension	36,220	87.4%
Neurological Disease	8,941	21.6%
Venous Thromboembolism (prior)	3,275	7.9%
<b>Recent Dispensed Fills (-183 to -3 days):</b>		
Anticoagulant History	8,841	21.3%
Antiplatelet History	5,117	12.3%



**Table 1b. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Post-Vaccine Era**

Characteristic	Number	Percent
<b>Total Patients</b>	91,433	100%
<b>Demographics:</b>	<b>Mean</b>	<b>Standard Deviation</b>
Age (years)	71.7	13
	<b>Median</b>	<b>Percent</b>
18-44	4,728	5.2%
45-54	4,836	5.3%
55-64	11,828	12.9%
65-74	29,868	32.7%
75-84	27,382	29.9%
85+	12,791	14.0%
<b>Sex</b>		
Male	45,347	49.6%
Female	46,086	50.4%
<b>Month of COVID-19 Diagnosis:</b>		
2020		
December	13,703	15.0%
2021		
January	13,466	14.7%
February	6,020	6.6%
March	4,291	4.7%
April	4,423	4.8%
May	2,795	3.1%
June	1,627	1.8%
July	3,983	4.4%
August	10,134	11.1%
September	8,491	9.3%
October	5,619	6.1%
November	5,939	6.5%
December	10,942	12.0%
<b>Recent Encounters (prior 365 days):</b>	<b>Mean</b>	<b>Standard Deviation</b>
Number of Hospital Encounters	0.6	1.2
Number of Ambulatory Encounters	23.7	30.6
<b>Recent Diagnosis History (prior 365 days):</b>	<b>Number</b>	<b>Percent</b>
Atrial Fibrillation/Flutter	27,229	29.8%
Cancer	23,641	25.9%
Cardiovascular Disease (prior)	48,877	53.5%
Chronic Kidney Disease	43,396	47.5%
Chronic Obstructive Pulmonary Disease	33,152	36.3%
Diabetes Mellitus (any type)	45,763	50.1%
Heart Failure	32,956	36.0%
Hyperlipidemia	68,324	74.7%

**Table 1b. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Post-Vaccine Era**

Characteristic	Number	Percent
<b>Recent Diagnosis History (prior 365 days):</b>		
Hypertension	77,953	85.3%
Neurological Disease	15,746	17.2%
Venous Thromboembolism (prior)	6,464	7.1%
<b>Recent Dispensed Fills (-183 to -3 days):</b>		
Anticoagulant History	19,584	21.4%
Antiplatelet History	10,880	11.9%

**Table 1c. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Pre-Vaccine Era**

Characteristic	Number	Percent	
<b>Total Patients</b>	272,065	100%	
<b>Demographics:</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Median</b>
Age (years)	55.6	17.5	43.4-70.3
	<b>Number</b>	<b>Percent</b>	
18-44	86,564	31.8%	
45-54	38,454	14.1%	
55-64	42,182	15.5%	
65-74	57,089	21.0%	
75-84	33,535	12.3%	
85+	14,241	5.2%	
<b>Sex</b>			
Male	121,048	44.5%	
Female	151,017	55.5%	
<b>Month of COVID-19 Diagnosis:</b>			
2020			
April	14,127	5.2%	
May	15,926	5.9%	
June	22,176	8.2%	
July	38,414	14.1%	
August	26,537	9.8%	
September	24,648	9.1%	
October	42,288	15.5%	
November	87,949	32.3%	
<b>Recent Encounters (prior 365 days):</b>	<b>Mean</b>	<b>Standard Deviation</b>	
Number of Hospital Encounters	0.1	0.5	
Number of Ambulatory Encounters	14.8	19.4	
<b>Recent Diagnosis History (prior 365 days):</b>	<b>Number</b>	<b>Percent</b>	
Atrial Fibrillation/Flutter	19,861	7.3%	
Cancer	33,201	12.2%	
Cardiovascular Disease (prior)	61,737	22.7%	
Chronic Kidney Disease	39,610	14.6%	
Chronic Obstructive Pulmonary Disease	30,803	11.3%	
Diabetes Mellitus (any type)	61,249	22.5%	
Heart Failure	21,430	7.9%	
Hyperlipidemia	119,851	44.1%	
Hypertension	125,942	46.3%	
Neurological Disease	18,184	6.7%	
Venous Thromboembolism (prior)	5,979	2.2%	
<b>Recent Dispensed Fills (-183 to -3 days):</b>			
Anticoagulant History	19,219	7.1%	
Antiplatelet History	12,362	4.5%	

**Table 1d. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number</b>	<b>Percent</b>
<b>Total Patients</b>	753,454	100%
<b>Demographics:</b>	<b>Mean</b>	<b>Standard Deviation</b>
Age (years)	56	16.9
	<b>Median</b>	42.5-69.9
	<b>Number</b>	<b>Percent</b>
18-44	236,287	31.4%
45-54	105,290	14.0%
55-64	114,298	15.2%
65-74	171,320	22.7%
75-84	95,921	12.7%
85+	30,338	4.0%
<b>Sex</b>		
Male	336,334	44.6%
Female	417,120	55.4%
<b>Month of COVID-19 Diagnosis:</b>		
2020		
December	110,215	14.6%
2021		
January	102,643	13.6%
February	42,638	5.7%
March	36,121	4.8%
April	34,545	4.6%
May	18,380	2.4%
June	10,513	1.4%
July	30,143	4.0%
August	81,365	10.8%
September	67,004	8.9%
October	44,611	5.9%
November	49,352	6.6%
December	125,924	16.7%
<b>Recent Encounters (prior 365 days):</b>	<b>Mean</b>	<b>Standard Deviation</b>
Number of Hospital Encounters	0.1	0.5
Number of Ambulatory Encounters	15.5	18.8
<b>Recent Diagnosis History (prior 365 days):</b>	<b>Number</b>	<b>Percent</b>
Atrial Fibrillation/Flutter	54,528	7.2%
Cancer	96,421	12.8%
Cardiovascular Disease (prior)	172,992	23.0%
Chronic Kidney Disease	104,342	13.8%
Chronic Obstructive Pulmonary Disease	84,459	11.2%
Diabetes Mellitus (any type)	165,313	21.9%
Heart Failure	57,086	7.6%
Hyperlipidemia	344,096	45.7%

**Table 1d. Baseline Characteristics of Patients with COVID-19 Defined Using a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Post-Vaccine Era**

Characteristic	Number	Percent
<b>Recent Diagnosis History (prior 365 days):</b>		
Hypertension	352,949	46.8%
Neurological Disease	34,888	4.6%
Venous Thromboembolism (prior)	16,372	2.2%
<b>Recent Dispensed Fills (-183 to -3 days):</b>		
Anticoagulant History	57,670	7.7%
Antiplatelet History	35,517	4.7%

**Table 2a. Numbers and Rates of Inpatient Arterial Thromboembolism (ATE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	41,443	6,559	15.83 (15.48, 16.18)
<b>Age (years):</b>			
18-44	2,032	70	3.44 (2.71, 4.36)
45-54	2,186	197	9.01 (7.86, 10.31)
55-64	5,161	666	12.90 (12.01, 13.86)
65-74	12,889	2,086	16.18 (15.55, 16.83)
75-84	12,649	2,319	18.33 (17.66, 19.02)
85+	6,526	1,221	18.71 (17.77, 19.68)
<b>Sex:</b>			
Male	20,890	3,580	17.14 (16.63, 17.66)
Female	20,553	2,979	14.49 (14.02, 14.98)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	5,676	910	16.03 (15.09, 17.02)
May	2,960	519	17.53 (16.19, 18.96)
June	3,052	521	17.07 (15.76, 18.46)
July	6,193	974	15.73 (14.83, 16.66)
August	4,110	632	15.38 (14.29, 16.52)
September	3,130	529	16.90 (15.61, 18.27)
October	5,449	808	14.83 (13.90, 15.81)
November	10,873	1,666	15.32 (14.65, 16.02)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	23,325	4,901	21.01 (20.49, 21.54)
Prior Anticoagulant Therapy (-183 to -3 days)	7,131	1,648	23.11 (22.14, 24.11)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	3,275	661	20.18 (18.83, 21.61)
Prior Anticoagulant Therapy (-183 to -3 days)	2,016	399	19.79 (18.09, 21.61)
<b>Anticoagulant History (-183 to -3 days)</b>	8,841	1,818	20.56 (19.73, 21.42)
<b>Antiplatelet History (-183 to -3 days)</b>	5,117	1,393	27.22 (26.01, 28.47)

**Table 2b. Numbers and Rates of Inpatient Arterial Thromboembolism (ATE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	91,433	14,966	16.37 (16.13, 16.61)
<b>Age (years):</b>			
18-44	4,728	139	2.94 (2.49, 3.47)
45-54	4,836	444	9.18 (8.39, 10.04)
55-64	11,828	1,620	13.70 (13.08, 14.33)
65-74	29,868	4,904	16.42 (16, 16.85)
75-84	27,382	5,279	19.28 (18.81, 19.75)
85+	12,791	2,580	20.17 (19.48, 20.88)
<b>Sex:</b>			
Male	45,347	8,162	18.00 (17.65, 18.36)
Female	46,086	6,804	14.76 (14.44, 15.09)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	13,703	2,248	16.41 (15.79, 17.04)
<b>2021</b>			
January	13,466	2,267	16.83 (16.21, 17.48)
February	6,020	1,009	16.76 (15.83, 17.73)
March	4,291	722	16.83 (15.73, 17.99)
April	4,423	671	15.17 (14.13, 16.27)
May	2,795	441	15.78 (14.46, 17.19)
June	1,627	285	17.52 (15.72, 19.47)
July	3,983	631	15.84 (14.73, 17.02)
August	10,134	1,619	15.98 (15.27, 16.71)
September	8,491	1,361	16.03 (15.26, 16.83)
October	5,619	920	16.37 (15.42, 17.37)
November	5,939	942	15.86 (14.95, 16.82)
December	10,942	1,850	16.91 (16.21, 17.63)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	48,877	10,478	21.44 (21.07, 21.80)
Prior Anticoagulant Therapy (-183 to -3 days)	15,518	3,425	22.07 (21.42, 22.73)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	6,464	1,309	20.25 (19.28, 21.26)
Prior Anticoagulant Therapy (-183 to -3 days)	4,279	804	18.79 (17.64, 20.0)
<b>Anticoagulant History (-183 to -3 days)</b>	19,584	3,919	20.01 (19.45, 20.58)
<b>Antiplatelet History (-183 to -3 days)</b>	10,880	2,923	26.87 (26.04, 27.71)

**Table 2c. Numbers and Rates of Inpatient Arterial Thromboembolism (ATE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	272,065	2,752	1.01 (0.97, 1.05)
<b>Age (years):</b>			
18-44	86,564	41	0.05 (0.03, 0.06)
45-54	38,454	109	0.28 (0.23, 0.34)
55-64	42,182	313	0.74 (0.66, 0.83)
65-74	57,089	912	1.60 (1.50, 1.70)
75-84	33,535	911	2.72 (2.55, 2.90)
85+	14,241	466	3.27 (2.99, 3.58)
<b>Sex:</b>			
Male	121,048	1,535	1.27 (1.21, 1.33)
Female	151,017	1,217	0.81 (0.76, 0.85)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	14,127	210	1.49 (1.30, 1.70)
May	15,926	173	1.09 (0.93, 1.26)
June	22,176	204	0.92 (0.80, 1.06)
July	38,414	390	1.02 (0.92, 1.12)
August	26,537	294	1.11 (0.99, 1.24)
September	24,648	231	0.94 (0.82, 1.07)
October	42,288	432	1.02 (0.93, 1.12)
November	87,949	818	0.93 (0.87, 1.00)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	61,737	1,917	3.11 (2.97, 3.25)
Prior Anticoagulant Therapy (-183 to -3 days)	13,143	596	4.53 (4.19, 4.91)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	5,979	213	3.56 (3.11, 4.07)
Prior Anticoagulant Therapy (-183 to -3 days)	3,762	142	3.77 (3.20, 4.45)
<b>Anticoagulant History (-183 to -3 days)</b>	19,219	679	3.53 (3.28, 3.81)
<b>Antiplatelet History (-183 to -3 days)</b>	12,362	563	4.55 (4.20, 4.94)



**Table 2d. Numbers and Rates of Inpatient Arterial Thromboembolism (ATE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	753,454	7,801	1.04 (1.01, 1.06)
<b>Age (years):</b>			
18-44	236,287	158	0.07 (0.06, 0.08)
45-54	105,290	375	0.36 (0.32, 0.39)
55-64	114,298	931	0.81 (0.76, 0.87)
65-74	171,320	2,585	1.51 (1.45, 1.57)
75-84	95,921	2,633	2.74 (2.64, 2.85)
85+	30,338	1,119	3.69 (3.48, 3.91)
<b>Sex:</b>			
Male	336,334	4,221	1.26 (1.22, 1.29)
Female	417,120	3,580	0.86 (0.83, 0.89)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	110,215	1,172	1.06 (1.00, 1.13)
<b>2021</b>			
January	102,643	1,153	1.12 (1.06, 1.19)
February	42,638	485	1.14 (1.04, 1.24)
March	36,121	314	0.87 (0.78, 0.97)
April	34,545	331	0.96 (0.86, 1.07)
May	18,380	208	1.13 (0.99, 1.30)
June	10,513	110	1.05 (0.86, 1.26)
July	30,143	354	1.17 (1.06, 1.30)
August	81,365	942	1.16 (1.09, 1.23)
September	67,004	829	1.24 (1.16, 1.32)
October	44,611	455	1.02 (0.93, 1.12)
November	49,352	487	0.99 (0.90, 1.08)
December	125,924	961	0.76 (0.72, 0.81)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	172,992	5,096	2.95 (2.87, 3.03)
Prior Anticoagulant Therapy (-183 to -3 days)	39,024	1,690	4.33 (4.13, 4.54)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	16,372	519	3.17 (2.91, 3.45)
Prior Anticoagulant Therapy (-183 to -3 days)	10,741	361	3.36 (3.03, 3.72)
<b>Anticoagulant History (-183 to -3 days)</b>	57,670	1,954	3.39 (3.24, 3.54)
<b>Antiplatelet History (-183 to -3 days)</b>	35,517	1,502	4.23 (4.02, 4.44)

**Table 2e. Numbers and Rates of All-Cause Mortality Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Any Care Setting, and an Inpatient Arterial Thromboembolism (ATE) Event in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number with ATE Events</b>	<b>Number of Deaths</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	9,421	2,039	21.64 (20.82, 22.49)
<b>Age (years):</b>			
18-44	113	11	9.73 (5.20, 17.12)
45-54	313	50	15.97 (12.19, 20.62)
55-64	1,006	127	12.62 (10.67, 14.87)
65-74	3,025	631	20.86 (19.43, 22.36)
75-84	3,264	788	24.14 (22.69, 25.66)
85+	1,700	432	25.41 (23.37, 27.57)
<b>Sex:</b>			
Male	5,188	1,250	24.09 (22.94, 25.29)
Female	4,233	789	18.64 (17.48, 19.85)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	1,130	292	25.84 (23.33, 28.52)
May	696	143	20.55 (17.64, 23.78)
June	730	145	19.86 (17.07, 22.98)
July	1,378	314	22.79 (20.61, 25.11)
August	933	178	19.08 (16.64, 21.78)
September	769	160	20.81 (18.02, 23.88)
October	1,259	245	19.46 (17.33, 21.78)
November	2,526	562	22.25 (20.65, 23.93)
<b>Care Setting at COVID-19 Diagnosis:</b>			
Ambulatory/Outpatient/Emergency	2,752	534	19.40 (17.95, 20.94)
Inpatient	6,559	1,482	22.59 (21.59, 23.63)
Unknown	110	23	20.91 (13.98, 29.92)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	6,871	1,447	21.06 (20.10, 22.05)
Prior Anticoagulant Therapy (-183 to -3 days)	2,262	453	20.03 (18.41, 21.75)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	879	171	19.45 (16.92, 22.26)
Prior Anticoagulant Therapy (-183 to -3 days)	545	104	19.08 (15.92, 22.69)
<b>Anticoagulant History (-183 to -3 days)</b>	2,516	512	20.35 (18.8, 21.99)
<b>Antiplatelet History (-183 to -3 days)</b>	1,974	399	20.21 (18.48, 22.07)

**Table 2f. Numbers and Rates of All-Cause Mortality Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Any Care Setting, and an Inpatient Arterial Thromboembolism (ATE) Event in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number with ATE Events</b>	<b>Number of Deaths</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	23,026	5,266	22.87 (22.33, 23.42)
<b>Age (years):</b>			
18-44	312	31	9.94 (6.95, 13.94)
45-54	838	120	14.32 (12.06, 16.92)
55-64	2,604	455	17.47 (16.04, 19.00)
65-74	7,562	1,760	23.27 (22.33, 24.25)
75-84	7,991	1,982	24.8 (23.86, 25.77)
85+	3,719	918	24.68 (23.31, 26.11)
<b>Sex:</b>			
Male	12,540	3,101	24.73 (23.98, 25.50)
Female	10,486	2,165	20.65 (19.88, 21.44)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	3,470	826	23.80 (22.4, 25.26)
<b>2021</b>			
January	3,474	759	21.85 (20.49, 23.27)
February	1,513	310	20.49 (18.50, 22.63)
March	1,048	176	16.79 (14.61, 19.23)
April	1,014	187	18.44 (16.13, 21.00)
May	656	111	16.92 (14.18, 20.06)
June	398	71	17.84 (14.28, 22.04)
July	994	271	27.26 (24.54, 30.17)
August	2,583	691	26.75 (25.06, 28.51)
September	2,202	547	24.84 (23.06, 26.71)
October	1,385	338	24.40 (22.18, 26.77)
November	1,449	377	26.02 (23.79, 28.37)
December	2,840	602	21.20 (19.72, 22.76)
<b>Care Setting at COVID-19 Diagnosis:</b>			
Ambulatory/Outpatient/Emergency	7,801	1,698	21.77 (20.86, 22.70)
Inpatient	14,966	3,517	23.50 (22.82, 24.19)
Unknown	259	51	19.69 (15.13, 25.17)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	15,709	3,399	21.64 (21, 22.29)
Prior Anticoagulant Therapy (-183 to -3 days)	5,151	1,098	21.32 (20.21, 22.47)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	1,843	392	21.27 (19.44, 23.22)
Prior Anticoagulant Therapy (-183 to -3 days)	1,175	253	21.53 (19.24, 24.02)
<b>Anticoagulant History (-183 to -3 days)</b>	5,916	1,312	22.18 (21.13, 23.26)
<b>Antiplatelet History (-183 to -3 days)</b>	4,467	966	21.63 (20.43, 22.87)

**Table 2g. Numbers and Rates of Inpatient Venous Thromboembolism (VTE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	41,443	3,984	9.61 (9.33, 9.90)
<b>Age (years):</b>			
18-44	2,032	104	5.12 (4.22, 6.19)
45-54	2,186	185	8.46 (7.35, 9.73)
55-64	5,161	537	10.40 (9.59, 11.28)
65-74	12,889	1,316	10.21 (9.70, 10.75)
75-84	12,649	1,262	9.98 (9.46, 10.52)
85+	6,526	580	8.89 (8.21, 9.61)
<b>Sex:</b>			
Male	20,890	2,064	9.88 (9.48, 10.29)
Female	20,553	1,920	9.34 (8.95, 9.75)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	5,676	507	8.93 (8.21, 9.71)
May	2,960	289	9.76 (8.73, 10.9)
June	3,052	299	9.80 (8.78, 10.92)
July	6,193	571	9.22 (8.52, 9.97)
August	4,110	442	10.75 (9.83, 11.75)
September	3,130	285	9.11 (8.13, 10.18)
October	5,449	530	9.73 (8.96, 10.55)
November	10,873	1,061	9.76 (9.21, 10.33)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	23,325	2,372	10.17 (9.79, 10.57)
Prior Anticoagulant Therapy (-183 to -3 days)	7,131	867	12.16 (11.41, 12.94)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	3,275	992	30.29 (28.73, 31.90)
Prior Anticoagulant Therapy (-183 to -3 days)	2,016	634	31.45 (29.43, 33.53)
<b>Anticoagulant History (-183 to -3 days)</b>	8,841	1,133	12.82 (12.13, 13.53)
<b>Antiplatelet History (-183 to -3 days)</b>	5,117	493	9.63 (8.85, 10.48)

**Table 2h. Numbers and Rates of Inpatient Venous Thromboembolism (VTE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Hospital/Inpatient Care Settings in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	91,433	10,366	11.34 (11.13, 11.54)
<b>Age (years):</b>			
18-44	4,728	283	5.99 (5.33, 6.71)
45-54	4,836	540	11.17 (10.30, 12.10)
55-64	11,828	1,390	11.75 (11.18, 12.35)
65-74	29,868	3,676	12.31 (11.94, 12.69)
75-84	27,382	3,238	11.83 (11.45, 12.21)
85+	12,791	1,239	9.69 (9.18, 10.22)
<b>Sex:</b>			
Male	45,347	5,450	12.02 (11.72, 12.32)
Female	46,086	4,916	10.67 (10.39, 10.95)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	13,703	1,438	10.49 (9.99, 11.02)
<b>2021</b>			
January	13,466	1,547	11.49 (10.96, 12.04)
February	6,020	681	11.31 (10.53, 12.15)
March	4,291	477	11.12 (10.20, 12.10)
April	4,423	503	11.37 (10.46, 12.35)
May	2,795	304	10.88 (9.76, 12.10)
June	1,627	182	11.19 (9.72, 12.84)
July	3,983	408	10.24 (9.33, 11.24)
August	10,134	1,139	11.24 (10.63, 11.87)
September	8,491	997	11.74 (11.07, 12.45)
October	5,619	659	11.73 (10.9, 12.60)
November	5,939	733	12.34 (11.52, 13.21)
December	10,942	1,298	11.86 (11.27, 12.49)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	48,877	5,564	11.38 (11.10, 11.67)
Prior Anticoagulant Therapy (-183 to -3 days)	15,518	1,905	12.28 (11.77, 12.81)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	6,464	2,015	31.17 (30.05, 32.32)
Prior Anticoagulant Therapy (-183 to -3 days)	4,279	1,327	31.01 (29.63, 32.43)
<b>Anticoagulant History (-183 to -3 days)</b>	19,584	2,516	12.85 (12.38, 13.33)
<b>Antiplatelet History (-183 to -3 days)</b>	10,880	1,088	10.00 (9.45, 10.58)

**Table 2i. Numbers and Rates of Inpatient Venous Thromboembolism (VTE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	272,065	2,175	0.80 (0.77, 0.83)
<b>Age (years):</b>			
18-44	86,564	118	0.14 (0.11, 0.16)
45-54	38,454	161	0.42 (0.36, 0.49)
55-64	42,182	311	0.74 (0.66, 0.82)
65-74	57,089	755	1.32 (1.23, 1.42)
75-84	33,535	594	1.77 (1.63, 1.92)
85+	14,241	236	1.66 (1.46, 1.88)
<b>Sex:</b>			
Male	121,048	1,169	0.97 (0.91, 1.02)
Female	151,017	1,006	0.67 (0.63, 0.71)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	14,127	130	0.92 (0.77, 1.10)
May	15,926	116	0.73 (0.6, 0.88)
June	22,176	150	0.68 (0.57, 0.80)
July	38,414	301	0.78 (0.70, 0.88)
August	26,537	247	0.93 (0.82, 1.06)
September	24,648	185	0.75 (0.65, 0.87)
October	42,288	377	0.89 (0.81, 0.99)
November	87,949	669	0.76 (0.70, 0.82)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	61,737	1,050	1.70 (1.60, 1.81)
Prior Anticoagulant Therapy (-183 to -3 days)	13,143	339	2.58 (2.32, 2.87)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	5,979	372	6.22 (5.63, 6.87)
Prior Anticoagulant Therapy (-183 to -3 days)	3,762	257	6.83 (6.06, 7.70)
<b>Anticoagulant History (-183 to -3 days)</b>	19,219	470	2.45 (2.23, 2.68)
<b>Antiplatelet History (-183 to -3 days)</b>	12,362	201	1.63 (1.41, 1.87)

**Table 2j. Numbers and Rates of Inpatient Venous Thromboembolism (VTE) Events Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Ambulatory/Outpatient Care Settings in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number in Cohort</b>	<b>Number of Events</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	753,454	7,650	1.02 (0.99, 1.04)
<b>Age (years):</b>			
18-44	236,287	428	0.18 (0.16, 0.20)
45-54	105,290	647	0.61 (0.57, 0.66)
55-64	114,298	1,202	1.05 (0.99, 1.11)
65-74	171,320	2,645	1.54 (1.49, 1.60)
75-84	95,921	2,009	2.09 (2.01, 2.19)
85+	30,338	719	2.37 (2.20, 2.55)
<b>Sex:</b>			
Male	336,334	4,161	1.24 (1.20, 1.28)
Female	417,120	3,489	0.84 (0.81, 0.86)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	110,215	1,026	0.93 (0.88, 0.99)
<b>2021</b>			
January	102,643	1,034	1.01 (0.95, 1.07)
February	42,638	425	1.00 (0.91, 1.10)
March	36,121	323	0.89 (0.80, 1.00)
April	34,545	351	1.02 (0.91, 1.13)
May	18,380	199	1.08 (0.94, 1.25)
June	10,513	141	1.34 (1.13, 1.58)
July	30,143	371	1.23 (1.11, 1.36)
August	81,365	1,047	1.29 (1.21, 1.37)
September	67,004	807	1.20 (1.12, 1.29)
October	44,611	499	1.12 (1.02, 1.22)
November	49,352	545	1.10 (1.01, 1.2)
December	125,924	882	0.70 (0.66, 0.75)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	172,992	3,425	1.98 (1.91, 2.05)
Prior Anticoagulant Therapy (-183 to -3 days)	39,024	1,091	2.80 (2.64, 2.97)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	16,372	1,058	6.46 (6.09, 6.85)
Prior Anticoagulant Therapy (-183 to -3 days)	10,741	779	7.25 (6.77, 7.76)
<b>Anticoagulant History (-183 to -3 days)</b>	57,670	1,528	2.65 (2.52, 2.78)
<b>Antiplatelet History (-183 to -3 days)</b>	35,517	701	1.97 (1.83, 2.13)

**Table 2k. Numbers and Rates of All-Cause Mortality Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Any Care Setting, and an Inpatient Venous Thromboembolism (VTE) Event in the Pre-Vaccine Era**

<b>Characteristic</b>	<b>Number with VTE Events</b>	<b>Number of Deaths</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	6,307	1,045	16.57 (15.66, 17.51)
<b>Age (years):</b>			
18-44	241	12	4.98 (2.72, 8.76)
45-54	376	36	9.57 (6.88, 13.12)
55-64	883	104	11.78 (9.76, 14.13)
65-74	2,106	341	16.19 (14.66, 17.85)
75-84	1,881	388	20.63 (18.83, 22.54)
85+	820	164	20.0 (17.35, 22.94)
<b>Sex:</b>			
Male	3,323	655	19.71 (18.38, 21.11)
Female	2,984	390	13.07 (11.89, 14.34)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
April	654	115	17.58 (14.79, 20.77)
May	420	64	15.24 (12.01, 19.12)
June	465	65	13.98 (11.02, 17.54)
July	892	151	16.93 (14.56, 19.59)
August	695	100	14.39 (11.91, 17.27)
September	483	74	15.32 (12.29, 18.92)
October	934	162	17.34 (15.0, 19.96)
November	1,764	314	17.80 (16.06, 19.68)
<b>Care Setting at COVID-19 Diagnosis:</b>			
Ambulatory/Outpatient/Emergency	2,175	318	14.62 (13.18, 16.19)
Inpatient	3,984	715	17.95 (16.77, 19.18)
Unknown	148	12	8.11 (4.45, 14.04)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	3,460	635	18.35 (17.08, 19.69)
Prior Anticoagulant Therapy (-183 to -3 days)	1,219	208	17.06 (15.02, 19.32)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	1,375	180	13.09 (11.38, 15.02)
Prior Anticoagulant Therapy (-183 to -3 days)	898	121	13.47 (11.34, 15.92)
<b>Anticoagulant History (-183 to -3 days)</b>	1,620	255	15.74 (14.02, 17.63)
<b>Antiplatelet History (-183 to -3 days)</b>	702	139	19.8 (16.95, 22.98)



**Table 2I. Numbers and Rates of All-Cause Mortality Among Those with COVID-19, Defined by a Positive Nucleic Acid Amplification Test (NAAT) or Diagnosis Code in Any Care Setting, and an Inpatient Venous Thromboembolism (VTE) Event in the Post-Vaccine Era**

<b>Characteristic</b>	<b>Number with VTE Events</b>	<b>Number of Deaths</b>	<b>Absolute Risk (%) with 95% CI</b>
<b>Overall</b>	18,337	3,719	20.28 (19.70, 20.87)
<b>Age (years):</b>			
18-44	741	56	7.56 (5.81, 9.76)
45-54	1,233	149	12.08 (10.34, 14.07)
55-64	2,656	476	17.92 (16.49, 19.45)
65-74	6,423	1,410	21.95 (20.95, 22.99)
75-84	5,308	1,238	23.32 (22.20, 24.49)
85+	1,976	390	19.74 (18.02, 21.58)
<b>Sex:</b>			
Male	9,798	2,189	22.34 (21.52, 23.18)
Female	8,539	1,530	17.92 (17.11, 18.75)
<b>Month of COVID-19 Diagnosis:</b>			
<b>2020</b>			
December	2,521	486	19.28 (17.77, 20.88)
<b>2021</b>			
January	2,649	490	18.50 (17.05, 20.04)
February	1,122	212	18.89 (16.67, 21.34)
March	824	140	16.99 (14.52, 19.77)
April	868	138	15.90 (13.56, 18.54)
May	510	82	16.08 (13.06, 19.62)
June	327	59	18.04 (14.12, 22.74)
July	798	180	22.56 (19.73, 25.65)
August	2,211	512	23.16 (21.42, 24.98)
September	1,831	413	22.56 (20.67, 24.55)
October	1,170	257	21.97 (19.65, 24.47)
November	1,295	283	21.85 (19.65, 24.23)
December	2,211	467	21.12 (19.45, 22.90)
<b>Care Setting at COVID-19 Diagnosis:</b>			
Ambulatory/Outpatient/Emergency	7,650	1,386	18.12 (17.26, 19.00)
Inpatient	10,366	2,293	22.12 (21.33, 22.93)
Unknown	321	40	12.46 (9.15, 16.70)
<b>Prior Cardiovascular Disease (prior 365 days)</b>	9,098	1,956	21.50 (20.66, 22.36)
Prior Anticoagulant Therapy (-183 to -3 days)	3,030	583	19.24 (17.86, 20.70)
<b>Prior Venous Thromboembolism (prior 365 days)</b>	3,105	468	15.07 (13.84, 16.39)
Prior Anticoagulant Therapy (-183 to -3 days)	2,133	312	14.63 (13.17, 16.21)
<b>Anticoagulant History (-183 to -3 days)</b>	4,092	765	18.70 (17.52, 19.93)
<b>Antiplatelet History (-183 to -3 days)</b>	1,803	439	24.35 (22.40, 26.41)