Supplemental Materials Legend

1. Table S1. Reasons for Testing and Symptoms

2. Table S2. Estimated Vaccine Effectiveness Against COVID-19-related Hospitalization
   and Death Among Patients with a Positive Test

3. List S3. of Inclusion and Exclusion Criteria

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Table S1. Reasons for Testing and Symptoms in A Random Sample of COVID-19 Tests

	Frequency	Percent
Reason for Testing Recorded (n=1421)		
Exposure	574	40%
Screening	847	60%
Positive Tests (n=606)		
Asymptomatic	160	26%
Symptomatic	346	57%
Unknown	100	17%
Total Sample (n=10000)		
Records indicating asymptomatic/symptomatic/reason for testing	1958	20%
Unknown	8042	80%
Exposure: ICD-10-CM code Z20.822; Screening: ICD-10-CM code Z11.52; up to 1 day before and including the date of the SARS-CoV-2 test		

Table S2. Estimated Vaccine Effectiveness Against COVID-19-related Hospitalization and Death Among Patients with a Positive Test by Dose and Variant

Variant	Number of doses versus unvaccinated	Adjusted VE (95% CI)^
Hospitalization		
Omicron	2nd dose (cases:1746, controls: 6715)	55% (49, 60)
Omicron	3rd dose (cases: 1403, controls: 5209)	78% (74, 81)
Delta	2nd dose (cases: 570, controls: 1912)	59% (48, 68)
Delta	3rd dose (cases: 381, controls: 986)	53% (12, 75)
Death		
Omicron	2nd dose (cases: 322, controls: 1286)	61% (47, 72)
Omicron	3rd dose (cases: 267, controls: 1062)	85% (77, 91)
Delta	2nd dose (cases: 109, controls: 434)	81% (67, 89)
Delta	3rd dose(cases: 89, controls: 352)	62% (-25, 88)
Above numbers exclude Johnson & Johnson's Janssen vaccines as of the date of the Johnson & Johnson's Janssen vaccine. 2nd and 3rd doses are for mRNA vaccines compared to no vaccination in the indicated period beginning 14 days after vaccination. Tests occurring in 0-13 days after vaccination were excluded.		
^Cases and controls were matched 1:4 (max) without replacement on HHS and lab test date within three weeks. The adjusted variables include the following: age (continuous), body mass index, cancer, congestive heart failure, chronic kidney disease, chronic obstructive pulmonary disease, diabetes mellitus, hypertension, immunocompromised, priority level, race/ethnicity, and rurality.		

2

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List 1. Inclusion and Exclusion Criteria

Inclusion criteria:

- o Tested at the VHA for SARS-CoV-2 via antigen or PCR

- o Enrolled in VHA benefits for 2+ years and a Veteran

- o Met VHA use criteria of 1 inpatient or 2 outpatient visits during the 2 years prior to study period

- o Resident of U.S. state or DC

- o Exposed in the community (excluded those hospitalized >1 day prior to test)

- o 18 years old or older at the time of the test with valid demographic data (excluded those with missing sex or date-of-birth)

- o COVID-19 naïve (excluded those with a positive test or diagnosis code in VHA or Medicare prior to the study period)

- o Veterans with positive tests during the study period were included as cases

- o Veterans with negative tests during the study period were included as controls

- o The test occurred during the study period (November 2021 (Delta predominance) or January 2022 (Omicron predominance))

- o Classifiable vaccination status:

    - ▪ 0 to 3 doses of mRNA vaccination

Exclusions:

- o Negative tests taken within 10 days following a positive test

- o Veterans vaccinated with Janssen vaccine