Case 3:21-cv-01211-AW-HTC Document 120-4 Filed 09/26/22 Page 1 of 19

EXHIBIT 4

	WARNING AND DECAMPTONS				
HIGHLIGHTS OF PRESCRIBING INFORMATION	WARNINGS AND PRECAUTIONS Postmarketing data demonstrate increased risks of myocarditis and pericarditis,				
These highlights do not include all the information needed to use COMIRNATY safely and effectively. See full prescribing information for COMIRNATY.	particularly within 7 days following the second dose. (5.2)				
safety and effectively. See full prescribing information for COMINNALL.	• Syncope (fainting) may occur in association with administration of injectable vaccines,				
COMIRNATY [®] (COVID-19 Vaccine, mRNA) suspension for injection, for	including COMIRNATY. Procedures should be in place to avoid injury from fainting.				
intramuscular use	(5.4)				
Initial U.S. Approval: 2021	ADVERSE REACTIONS				
	• In clinical studies of participants 16 through 55 years of age, the most commonly				
COMIRNATY is a vaccine indicated for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2	reported adverse reactions ($\geq 10\%$) were pain at the injection site (88.6%), fatigue				
(SARS-CoV-2) in individuals 16 years of age and older. (1)	(70.1%), headache (64.9%), muscle pain (45.5%), chills (41.5%), joint pain (27.5%),				
DOSAGE AND ADMINISTRATION	fever (17.8%), and injection site swelling (10.6%). (6.1)				
COMIRNATY supplied in multiple dose vials with gray caps and labels with gray	• In clinical studies of participants 56 years of age and older, the most commonly				
borders MUST NOT be diluted prior to use. (2.1)	reported adverse reactions ($\geq 10\%$) were pain at the injection site (78.2%), fatigue				
• For intramuscular injection only. (2.2)	(56.9%), headache, (45.9%), muscle pain (32.5%), chills (24.8%), joint pain (21.5%), initiation site and line (11.8%). form (11.5%), and initiation site and here (10.4%).				
• COMIRNATY is administered intramuscularly as a series of 2 doses (0.3 mL each) 3	injection site swelling (11.8%), fever (11.5%), and injection site redness (10.4%). (6.1)				
weeks apart. (2.3)					
	To report SUSPECTED ADVERSE REACTIONS, contact Pfizer Inc. at 1-800-438-				
DOSAGE FORMS AND STRENGTHS					
Suspension for injection. A single dose is 0.3 mL. (3) CONTRAINDICATIONS	See 17 for PATIENT COUNSELING INFORMATION Revised: 12/2021				
Known history of a severe allergic reaction (e.g., anaphylaxis) to any component of					
COMIRNATY. (4)					
COMIRNATY. (4) FULL PRESCRIBING INFORMATION: CONTENTS*	6.2 Postmarketing Experience				
COMIRNATY. (4) FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE	8 USE IN SPECIFIC POPULATIONS				
COMIRNATY. (4) FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION	8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy				
<pre>COMIRNATY. (4) FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration</pre>	8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation				
<pre>COMIRNATY. (4)</pre> FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information	8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use				
FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule	8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use				
 FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 	8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION				
FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 				
FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 				
 FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 				
FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 5.2 Myocarditis and Pericarditis	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 				
FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 5.2 Myocarditis and Pericarditis 5.3 Syncope	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 14 CLINICAL STUDIES 				
 FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 5.2 Myocarditis and Pericarditis 5.3 Syncope 5.4 Altered Immunocompetence 	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 14 CLINICAL STUDIES 16 HOW SUPPLIED/STORAGE AND HANDLING 				
 FULL PRESCRIBING INFORMATION: CONTENTS* 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 5.2 Myocarditis and Pericarditis 5.3 Syncope 5.4 Altered Immunocompetence 5.5 Limitation of Effectiveness 	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 14 CLINICAL STUDIES 16 HOW SUPPLIED/STORAGE AND HANDLING 17 PATIENT COUNSELING INFORMATION 				
 FULL PRESCRIBING INFORMATION: CONTENTS* INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 Preparation for Administration 2.2 Administration Information 2.3 Vaccination Schedule 3 DOSAGE FORMS AND STRENGTHS 4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS 5.1 Management of Acute Allergic Reactions 5.2 Myocarditis and Pericarditis 5.3 Syncope 5.4 Altered Immunocompetence 	 8 USE IN SPECIFIC POPULATIONS 8.1 Pregnancy 8.2 Lactation 8.4 Pediatric Use 8.5 Geriatric Use 11 DESCRIPTION 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 14 CLINICAL STUDIES 16 HOW SUPPLIED/STORAGE AND HANDLING 				

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

COMIRNATY is a vaccine indicated for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 16 years of age and older.

2 DOSAGE AND ADMINISTRATION

For intramuscular injection only.

2.1 Preparation for Administration

The storage, preparation, and administration information in this Prescribing Information apply to COMIRNATY for individuals 16 years of age and older supplied in multiple dose vials with gray caps and labels with gray borders, which **MUST NOT** be diluted prior to use.

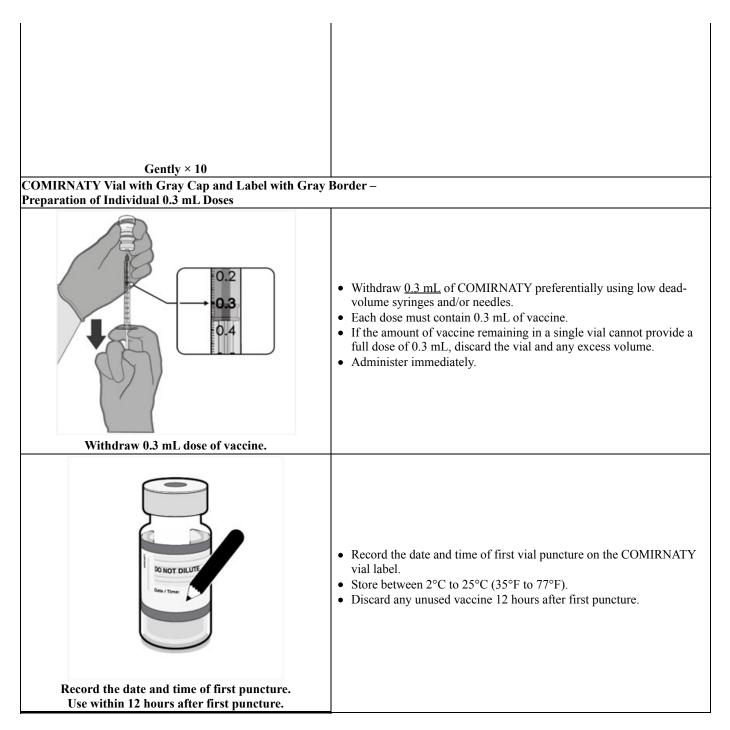
COMIRNATY Multiple Dose Vial with Gray Cap and Label with a Gray Border

Age Range	Dilution Information	Doses Per Vial	Dose Volume
16 years and older	Do not dilute prior to use	6	0.3 mL

DO NOT DILUTE

- COMIRNATY multiple dose vial with a gray cap and a label with a gray border contains a volume of 2.25 mL, supplied as a frozen suspension that does not contain preservative. Each vial must be thawed prior to administration. **DO NOT DILUTE** prior to use.
- Vials may be thawed in the refrigerator [2°C to 8°C (35°F to 46°F)] or at room temperature [up to 25°C (77°F)] [see How Supplied/Storage and Handling (16)].
- Refer to thawing instructions in the panels below.
- One vial contains 6 doses of 0.3 mL.

Preparation Instructions COMIRNATY Vial with Gray Cap and Label with Gray Border – Vial Verification Gray cap • Verify that the vial of COMIRNATY has a gray plastic cap and a label OO NOT DILUTE with a gray border. ✓ Gray plastic cap and label with gray border. COMIRNATY Vial with Gray Cap and Label with Gray Border – Thawing Prior to Use • Thaw vial(s) of COMIRNATY before use either by: • Allowing vial(s) to thaw in the refrigerator [2°C to 8°C (35°F to Store in the 46°F)]. A carton of 10 vials may take up to 6 hours to thaw, and refrigerator for thawed vials can be stored in the refrigerator for up to 10 weeks. up to 10 weeks • Allowing vial(s) to sit at room temperature [up to 25°C (77°F)] for 30 minutes. prior to use. Vials may be stored at room temperature [up to 25°C (77°F)] for up to 12 hours prior to use. • Before use, mix by inverting vaccine vial gently 10 times. • Do not shake. • Prior to mixing, the thawed vaccine may contain white to off-white opaque amorphous particles. • After mixing, the vaccine should appear as a white to off-white suspension with no visible particles. Do not use if liquid is discolored or if particles are observed after • mixing.



Vials of COMIRNATY with gray caps and labels with gray borders contain 6 doses of 0.3 mL of vaccine. Low dead-volume syringes and/or needles can be used to extract 6 doses from a single vial. If standard syringes and needles are used, there may not be sufficient volume to extract 6 doses from a single vial. Irrespective of the type of syringe and needle,

- each dose must contain 0.3 mL of vaccine.
- if the amount of vaccine remaining in the vial cannot provide a full dose of 0.3 mL, discard the vial and any excess volume.
- do not pool excess vaccine from multiple vials.

2.2 Administration Information

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit. The vaccine will be a white to off-white suspension. Do not administer if vaccine is discolored or contains particulate matter.

Administer a single 0.3 mL dose of COMIRNATY intramuscularly.

2.3 Vaccination Schedule

COMIRNATY is administered intramuscularly as a series of 2 doses (0.3 mL each) 3 weeks apart.

There are no data available on the interchangeability of COMIRNATY with COVID-19 vaccines from other manufacturers to complete the vaccination series. Individuals who have received 1 dose of COMIRNATY should receive a second dose of COMIRNATY to complete the vaccination series.

3 DOSAGE FORMS AND STRENGTHS

COMIRNATY is a suspension for injection. Each dose of COMIRNATY supplied in vials with gray caps and labels with gray borders is 0.3 mL.

4 CONTRAINDICATIONS

Do not administer COMIRNATY to individuals with known history of a severe allergic reaction (e.g., anaphylaxis) to any component of the COMIRNATY [see Description (11)].

5 WARNINGS AND PRECAUTIONS

5.1 Management of Acute Allergic Reactions

Appropriate medical treatment used to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration of COMIRNATY.

5.2 Myocarditis and Pericarditis

Postmarketing data demonstrate increased risks of myocarditis and pericarditis, particularly within 7 days following the second dose. The observed risk is higher among males under 40 years of age than among females and older males. The observed risk is highest in males 12 through 17 years of age. Although some cases required intensive care support, available data from short-term follow-up suggest that most individuals have had resolution of symptoms with conservative management. Information is not yet available about potential long-term sequelae. The CDC has published considerations related to myocarditis and pericarditis after vaccination, including for vaccination of individuals with a history of myocarditis or pericarditis (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/myocarditis.html).

5.3 Syncope

Syncope (fainting) may occur in association with administration of injectable vaccines, including COMIRNATY. Procedures should be in place to avoid injury from fainting.

5.4 Altered Immunocompetence

Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to the COMIRNATY.

5.5 Limitation of Effectiveness

COMIRNATY may not protect all vaccine recipients.

6 ADVERSE REACTIONS

In clinical studies, the most commonly reported ($\geq 10\%$) adverse reactions in participants 16 through 55 years of age following any dose were pain at the injection site (88.6%), fatigue (70.1%), headache (64.9%), muscle pain (45.5%), chills (41.5%), joint pain (27.5%), fever (17.8%), and injection site swelling (10.6%).

In clinical studies, the most commonly reported ($\geq 10\%$) adverse reactions in participants 56 years of age and older following any dose were pain at the injection site (78.2%), fatigue (56.9%), headache, (45.9%), muscle pain (32.5%), chills (24.8%), joint pain (21.5%), injection site swelling (11.8%), fever (11.5%), and injection site redness (10.4%).

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a vaccine cannot be directly compared to rates in the clinical trials of another vaccine and may not reflect the rates observed in practice.

The safety of COMIRNATY was evaluated in participants 16 years of age and older in 2 clinical studies conducted in Germany (Study 1), United States, Argentina, Brazil, Turkey, South Africa, and Germany (Study 2). Study BNT162-01 (Study 1) was a Phase 1/2, 2-part, dose-escalation trial that enrolled 60 participants, 18 through 55 years of age and 36 participants, 56 through 85 years of age. Study C4591001 (Study 2) is a Phase 1/2/3 multicenter, multinational, randomized, saline placebo-controlled, double-blinded (Phase 2/3), dose-finding, vaccine candidate-selection and efficacy study that has enrolled approximately 44,047 participants (22,026 COMIRNATY; 22,021 placebo) 16 years of age or older (including 378 and 376 participants 16 through 17 years of age in the vaccine and placebo groups, respectively). Upon issuance of the Emergency Use Authorization (December 11, 2020) for COMIRNATY, participants were unblinded to offer placebo participants COMIRNATY. Participants were unblinded in a phased manner over a period of months to offer placebo participants COMIRNATY. Study 2 also included 200 participants with confirmed stable human immunodeficiency virus (HIV) infection; HIV-positive participants are included in safety population disposition but are summarized separately

in safety analyses. Confirmed stable HIV infection was defined as documented viral load <50 copies/mL and CD4 count >200 cells/mm³ within 6 months before enrollment, and on stable antiretroviral therapy for at least 6 months.

At the time of the analysis of the ongoing Study 2 with a data cut-off of March 13, 2021, there were 25,651 (58.2%) participants (13,031 COMIRNATY and 12,620 placebo) 16 years of age and older followed for \geq 4 months after the second dose.

Participants 16 years and older in the reactogenicity subset were monitored for solicited local and systemic reactions and use of antipyretic medication after each vaccination in an electronic diary. Participants are being monitored for unsolicited adverse events, including serious adverse events, throughout the study [from Dose 1 through 1 month (all unsolicited adverse events) or 6 months (serious adverse events) after the last vaccination].

Demographic characteristics in Study 2 were generally similar with regard to age, gender, race, and ethnicity among participants who received COMIRNATY and those who received placebo. Overall, among the total participants who received either COMIRNATY or placebo, 50.9% were male, 49.1% were female, 79.3% were 16 through 64 years of age, 20.7% were 65 years of age and older, 82.0% were White, 9.6% were Black or African American, 25.9% were Hispanic/Latino, 4.3% were Asian, and 1.0% were American Indian or Alaska Native.

Local and Systemic Adverse Reactions Solicited in the Study 2

Table 1 and Table 2 present the frequency and severity of reported solicited local and systemic reactions, respectively, within 7 days following each dose of COMIRNATY and placebo in the subset of participants 16 through 55 years of age included in the safety population who were monitored for reactogenicity with an electronic diary.

Table 3 and Table 4 present the frequency and severity of reported solicited local and systemic reactions, respectively, within 7 days of each dose of COMIRNATY and placebo for participants 56 years of age and older.

In participants 16 through 55 years of age after receiving Dose 2, the mean duration of pain at the injection site was 2.5 days (range 1 to 70 days), for redness 2.2 days (range 1 to 9 days), and for swelling 2.1 days (range 1 to 8 days) for participants in the COMIRNATY group. In participants 56 years of age and older after receiving Dose 2, the mean duration of pain at the injection site was 2.4 days (range 1 to 36 days), for redness 3.0 days (range 1 to 34 days) for participants in the COMIRNATY group.

	COMIRNATY Dose 1 N [†] =2899 n [‡] (%)	Placebo Dose 1 N [†] =2908 n [‡] (%)	COMIRNATY Dose 2 N [†] =2682 n [‡] (%)	Placebo Dose 2 N [†] =2684 n [‡] (%)
Redness [§]	·	•		
Any (>2.0 cm)	156 (5.4)	28 (1.0)	151 (5.6)	18 (0.7)
Mild	113 (3.9)	19 (0.7)	90 (3.4)	12 (0.4)
Moderate	36 (1.2)	6 (0.2)	50 (1.9)	6 (0.2)
Severe	7 (0.2)	3 (0.1)	11 (0.4)	0
Swelling [§]			• •	
Any (>2.0 cm)	184 (6.3)	16 (0.6)	183 (6.8)	5 (0.2)
Mild	124 (4.3)	6 (0.2)	110 (4.1)	3 (0.1)
Moderate	54 (1.9)	8 (0.3)	66 (2.5)	2 (0.1)
Severe	6 (0.2)	2 (0.1)	7 (0.3)	0
Pain at the injection site				
Any	2426 (83.7)	414 (14.2)	2101 (78.3)	312 (11.6)
Mild	1464 (50.5)	391 (13.4)	1274 (47.5)	284 (10.6)
Moderate	923 (31.8)	20 (0.7)	788 (29.4)	28 (1.0)
Severe	39 (1.3)	3 (0.1)	39 (1.5)	0

Table 1: Study 2 – Frequency and Percentages of Participants with Solicited Local Reactions, by Maximum Severity, Within 7 Davs After Each Dose – Participants 16 Through 55 Years of Age – Reactogenicity Subset of the Safety Population*

Notes: Reactions were collected in the electronic diary (e-diary) from Day 1 to Day 7 after vaccination.

No Grade 4 solicited local reactions were reported in participants 16 through 55 years of age.

* Randomized participants in the safety analysis population who received at least 1 dose of the study intervention. Participants with chronic, stable HIV infection were excluded.

† N = Number of participants reporting at least 1 yes or no response for the specified reaction after the specified dose. The N for each reaction was the same, therefore, this information was included in the column header.

 \ddagger n = Number of participants with the specified reaction.

§ Mild: >2.0 to \leq 5.0 cm; Moderate: >5.0 to \leq 10.0 cm; Severe: >10.0 cm.

¶ Mild: does not interfere with activity; Moderate: interferes with activity; Severe: prevents daily activity.

Table 2: Study 2 – Frequency and Percentages of Participants with Solicited Systemic Reactions, by Maximum Severity, Within 7 Days After Each Dose – Participants 16 Through 55 Years of Age – Reactogenicity Subset of the Safety Population*

	8	8	
COMIRNATY	Placebo	COMIRNATY	Placebo
1		1	I I

5/14/22, 1:18 PM

	Dose 1 N [†] =2899	Dose 1 $N^{\dagger}=2908$	Dose 2 $N^{\dagger}=2682$	Dose 2 N [†] =2684
Favor	n‡ (%)	n‡ (%)	n‡ (%)	n [‡] (%)
Fever ≥38.0°C	110 (4 1)	25 (0,0)	440(164)	11 (0 4)
≥38.0°C to 38.4°C	119 (4.1)	25 (0.9)	440 (16.4)	11 (0.4) 5 (0.2)
≥38.0 °C to 38.4 °C >38.4 °C to 38.9 °C	86 (3.0) 25 (0.9)	16 (0.6) 5 (0.2)	254 (9.5) 146 (5.4)	4 (0.1)
>38.9°C to 40.0°C	8 (0.3)	4 (0.1)	39 (1.5)	2 (0.1)
>40.0°C	0	4 (0.1)	1 (0.0)	0
Fatigue [§]	0	0	1 (0.0)	0
Any	1431 (49.4)	960 (33.0)	1649 (61.5)	614 (22.9)
Mild	760 (26.2)	570 (19.6)	558 (20.8)	317 (11.8)
Moderate	630 (21.7)	370 (19.8)	949 (35.4)	283 (10.5)
		18 (0.6)		
Severe Headache [§]	41 (1.4)	18 (0.0)	142 (5.3)	14 (0.5)
	1262 (43.5)	975 (33.5)	1448 (54.0)	652 (24.3)
Any Mild	· · · ·	633 (21.8)	699 (26.1)	404 (15.1)
Mild Moderate	785 (27.1) 444 (15.3)	· · · ·		230 (8.6)
Severe		318 (10.9)	658 (24.5)	
Severe Chills [§]	33 (1.1)	24 (0.8)	91 (3.4)	18 (0.7)
	470 (16.5)	100 (6.9)	1015 (27.9)	114 (4 2)
Any Mild	479 (16.5)	199 (6.8)	1015 (37.8)	114 (4.2)
	338 (11.7)	148 (5.1)	477 (17.8)	89 (3.3)
Moderate	126 (4.3)	49 (1.7)	469 (17.5)	23 (0.9)
Severe	15 (0.5)	2 (0.1)	69 (2.6)	2 (0.1)
Vomiting	24(1.0)	2((1,2))	50 (2 2)	20 (1 1)
Any	34 (1.2)	36 (1.2)	58 (2.2)	30 (1.1)
Mild	29 (1.0)	30 (1.0)	42 (1.6)	20 (0.7)
Moderate	5 (0.2)	5 (0.2)	12 (0.4)	10 (0.4)
Severe	0	1 (0.0)	4 (0.1)	0
Diarrhea [#]	200 (10 5)	222 (11 1)	2(0,(10,0)	005 (7.0)
Any	309 (10.7)	323 (11.1)	269 (10.0)	205 (7.6)
Mild	251 (8.7)	264 (9.1)	219 (8.2)	169 (6.3)
Moderate	55 (1.9)	58 (2.0)	44 (1.6)	35 (1.3)
Severe	3 (0.1)	1 (0.0)	6 (0.2)	1 (0.0)
New or worsened muscle pain [§]				
Any	664 (22.9)	329 (11.3)	1055 (39.3)	237 (8.8)
Mild	353 (12.2)	231 (7.9)	441 (16.4)	150 (5.6)
Moderate	296 (10.2)	96 (3.3)	552 (20.6)	84 (3.1)
Severe	15 (0.5)	2 (0.1)	62 (2.3)	3 (0.1)
New or worsened joint pain§				
Any	342 (11.8) 168 (5.8)		638 (23.8)	147 (5.5)
Mild	200 (6.9)	112 (3.9)	291 (10.9)	82 (3.1)
Moderate	137 (4.7)	55 (1.9)	320 (11.9)	61 (2.3)
Severe	5 (0.2)	1 (0.0)	27 (1.0)	4 (0.1)
Use of antipyretic or pain medication ^b	805 (27.8)	398 (13.7)	1213 (45.2)	320 (11.9)

Notes: Reactions and use of antipyretic or pain medication were collected in the electronic diary (e-diary) from Day 1 to Day 7 after each dose.

No Grade 4 solicited systemic reactions were reported in participants 16 through 55 years of age.

* Randomized participants in the safety analysis population who received at least 1 dose of the study intervention. Participants with chronic, stable HIV infection were excluded.

* N = Number of participants reporting at least 1 yes or no response for the specified reaction after the specified dose. The N for each reaction or use of antipyretic or pain medication was the same, therefore, this information was included in the column header.

 \ddagger n = Number of participants with the specified reaction.

§ Mild: does not interfere with activity; Moderate: some interference with activity; Severe: prevents daily activity.

¶ Mild: 1 to 2 times in 24 hours; Moderate: >2 times in 24 hours; Severe: requires intravenous hydration.

Mild: 2 to 3 loose stools in 24 hours; Moderate: 4 to 5 loose stools in 24 hours; Severe: 6 or more loose stools in 24 hours.

	COMIRNATY Dose 1 N [†] =2008 n [‡] (%)	Placebo Dose 1 N [†] =1989 n [‡] (%)	COMIRNATY Dose 2 N [†] =1860 n [‡] (%)	Placebo Dose 2 N [†] =1833 n [‡] (%)
Redness§	_ ((1)	- ((1)		
Any (>2.0 cm)	106 (5.3)	20 (1.0)	133 (7.2)	14 (0.8)
Mild	71 (3.5)	13 (0.7)	65 (3.5)	10 (0.5)
Moderate	30 (1.5)	5 (0.3)	58 (3.1)	3 (0.2)
Severe	5 (0.2)	2 (0.1)	10 (0.5)	1 (0.1)
Swelling [§]	· · · · · ·			
Any (>2.0 cm)	141 (7.0)	23 (1.2)	145 (7.8)	13 (0.7)
Mild	87 (4.3)	4.3) 11 (0.6) 80 (4.3)		5 (0.3)
Moderate	e 52 (2.6) 12 (0.6) 61 (3.3)		61 (3.3)	7 (0.4)
Severe	2 (0.1)	0	4 (0.2)	1 (0.1)
Pain at the injection site	· · · ·		· · · ·	
Any (>2.0 cm)	1408 (70.1)	185 (9.3)	1230 (66.1)	143 (7.8)
Mild	1108 (55.2)	177 (8.9)	873 (46.9)	138 (7.5)
Moderate	296 (14.7)	8 (0.4)	347 (18.7)	5 (0.3)
Severe	4 (0.2)	0	10 (0.5)	0

Table 3: Study 2 – Frequency and Percentages of Participants with Solicited Local Reactions, by Maximum Severity, Within 7 Days After Each Dose – Participants 56 Years of Age and Older – Reactogenicity Subset of the Safety Population*

Notes: Reactions were collected in the electronic diary (e-diary) from Day 1 to Day 7 after vaccination.

No Grade 4 solicited local reactions were reported in participants 56 years of age and older.

* Randomized participants in the safety analysis population who received at least 1 dose of the study intervention. Participants with chronic, stable HIV infection were excluded.

[†] N = Number of participants reporting at least 1 yes or no response for the specified reaction after the specified dose. The N for each reaction was the same, therefore, the information was included in the column header.

 \ddagger n = Number of participants with the specified reaction.

§ Mild: >2.0 to \leq 5.0 cm; Moderate: >5.0 to \leq 10.0 cm; Severe: >10.0 cm.

¶ Mild: does not interfere with activity; Moderate: interferes with activity; Severe: prevents daily activity.

Table 4: Study 2 – Frequency and Percentages of Participants with Solicited Systemic Reactions, by Maximum Severity, Within 7 Days After Each Dose – Participants 56 Years of Age and Older – Reactogenicity Subset of the Safety Population*

	COMIRNATY Dose 1	Placebo Dose 1	COMIRNATY Dose 2	Placebo Dose 2
	N [†] =2008 n [‡] (%)	N [†] =1989 n [‡] (%)	N [†] =1860 n [‡] (%)	N [†] =1833 n [‡] (%)
Fever	· · · · ·		• • • • •	
≥38.0°C	26 (1.3)	8 (0.4)	219 (11.8)	4 (0.2)
≥38.0°C to 38.4°C	23 (1.1)	3 (0.2)	158 (8.5)	2 (0.1)
>38.4°C to 38.9°C	2 (0.1)	3 (0.2)	54 (2.9)	1 (0.1)
>38.9°C to 40.0°C	1 (0.0)	2 (0.1)	7 (0.4)	1 (0.1)
>40.0°C	0	0	0	0
Fatigue [§]		·		
Any	677 (33.7)	447 (22.5)	949 (51.0)	306 (16.7)
Mild	415 (20.7)	281 (14.1)	391 (21.0)	183 (10.0) 121 (6.6)
Moderate	259 (12.9)	163 (8.2)	497 (26.7)	
Severe	3 (0.1)	3 (0.2)	60 (3.2) 2 (0.1	
Grade 4	0	0 1 (0.1)		0
Headache [§]				
Any	503 (25.0)	363 (18.3)	733 (39.4)	259 (14.1)
Mild	381 (19.0)	267 (13.4)	464 (24.9)	189 (10.3)
Moderate	120 (6.0)	93 (4.7)	256 (13.8)	65 (3.5)
Severe	2 (0.1)	3 (0.2)	13 (0.7)	5 (0.3)

Chills [§]				
Any	130 (6.5)	69 (3.5)	435 (23.4)	57 (3.1)
Mild	102 (5.1)	49 (2.5)	229 (12.3)	45 (2.5)
Moderate	28 (1.4)	19 (1.0)	185 (9.9)	12 (0.7)
Severe	0	1 (0.1)	21 (1.1)	0
Vomiting				
Any	10 (0.5)	9 (0.5)	13 (0.7)	5 (0.3)
Mild	9 (0.4)	9 (0.5)	10 (0.5)	5 (0.3)
Moderate	1 (0.0)	0	1 (0.1)	0
Severe	0	0	2 (0.1)	0
Diarrhea [#]				
Any	168 (8.4)	130 (6.5)	152 (8.2)	102 (5.6)
Mild	137 (6.8)	109 (5.5)	125 (6.7)	76 (4.1)
Moderate	27 (1.3)	20 (1.0)	25 (1.3)	22 (1.2)
Severe	4 (0.2)	1 (0.1)	2 (0.1)	4 (0.2)
New or worsened muscle pain [§]				
Any	274 (13.6)	165 (8.3)	537 (28.9)	99 (5.4)
Mild	183 (9.1)	111 (5.6)	229 (12.3)	65 (3.5)
Moderate	90 (4.5)	51 (2.6)	288 (15.5)	33 (1.8)
Severe	1 (0.0)	3 (0.2)	20 (1.1)	1 (0.1)
New or worsened joint pain [§]				
Any	175 (8.7)	124 (6.2)	353 (19.0)	72 (3.9)
Mild	119 (5.9)	78 (3.9)	183 (9.8)	44 (2.4)
Moderate	53 (2.6)	45 (2.3)	161 (8.7)	27 (1.5)
Severe	3 (0.1)	1 (0.1)	9 (0.5)	1 (0.1)
Use of antipyretic or pain medication ^Þ	382 (19.0)	224 (11.3)	688 (37.0)	170 (9.3)

Notes: Reactions and use of antipyretic or pain medication were collected in the electronic diary (e-diary) from Day 1 to Day 7 after each dose.

The only Grade 4 solicited systemic reaction reported in participants 56 years of age and older was fatigue.

* Randomized participants in the safety analysis population who received at least 1 dose of the study intervention. Participants with chronic, stable HIV infection were excluded.

[†] N = Number of participants reporting at least 1 yes or no response for the specified reaction after the specified dose. N for each reaction or use of antipyretic or pain medication was the same, therefore was included in the column header.

 \ddagger n = Number of participants with the specified reaction.

§ Mild: does not interfere with activity; Moderate: some interference with activity; Severe: prevents daily activity; Grade 4 reactions were defined in the clinical study protocol as emergency room visit or hospitalization for severe fatigue, severe headache, severe chills, severe muscle pain, or severe joint pain.

Mild: 1 to 2 times in 24 hours; Moderate: >2 times in 24 hours; Severe: requires intravenous hydration; Grade 4 emergency visit or hospitalization for severe vomiting.

[#] Mild: 2 to 3 loose stools in 24 hours; Moderate: 4 to 5 loose stools in 24 hours; Severe: 6 or more loose stools in 24 hours; Grade 4: emergency room or hospitalization for severe diarrhea.

^b Severity was not collected for use of antipyretic or pain medication.

In participants with chronic, stable HIV infection the frequencies of solicited local and systemic adverse reactions were similar to or lower than those observed for all participants 16 years of age and older.

Unsolicited Adverse Events

Overall, 11,253 (51.1%) participants in the COMIRNATY group and 11,316 (51.4%) participants in the placebo group had follow-up time between \geq 4 months to <6 months after Dose 2 in the blinded placebo-controlled follow-up period with an additional 1,778 (8.1%) and 1,304 (5.9%) with \geq 6 months of blinded follow-up time in the COMIRNATY and placebo groups, respectively.

A total of 12,006 (54.5%) participants originally randomized to COMIRNATY had ≥ 6 months total (blinded and unblinded) follow-up after Dose 2.

In an analysis of all unsolicited adverse events reported following any dose, through 1 month after Dose 2, in participants 16 years of age and older (N=43,847; 21,926 COMIRNATY group vs. 21,921 placebo group), those assessed as adverse reactions not already captured by solicited local and systemic reactions were nausea (274 vs. 87), malaise (130 vs. 22), lymphadenopathy (83 vs. 7), asthenia (76 vs. 25), decreased appetite (39 vs. 9), hyperhidrosis (31 vs. 9), lethargy (25 vs. 6), and night sweats (17 vs. 3).

In analyses of all unsolicited adverse events in Study 2 from Dose 1 up to the participant unblinding date, 58.2% of study participants had at least 4 months of follow-up after Dose 2. Among participants 16 through 55 years of age who received at least 1 dose of study vaccine, 12,995 of whom

received COMIRNATY and 13,026 of whom received placebo, unsolicited adverse events were reported by 4,396 (33.8%) participants in the COMIRNATY group and 2,136 (16.4%) participants in the placebo group. In a similar analysis in participants 56 years of age and older that included 8,931 COMIRNATY recipients and 8,895 placebo recipients, unsolicited adverse events were reported by 2,551 (28.6%) participants in the COMIRNATY group and 1,432 (16.1%) participants in the placebo group. Among participants with confirmed stable HIV infection that included 100 COMIRNATY recipients and 100 placebo recipients, unsolicited adverse events were reported by 29 (29%) participants in the COMIRNATY group and 15 (15%) participants in the placebo group. The higher frequency of reported unsolicited adverse events among COMIRNATY recipients compared to placebo recipients was primarily attributed to events that are consistent with adverse reactions solicited among participants in the reactogenicity subset (Table 3 and Table 4).

Throughout the placebo-controlled safety follow-up period, Bell's palsy (facial paralysis) was reported by 4 participants in the COMIRNATY group and 2 participants in the placebo group. Onset of facial paralysis was Day 37 after Dose 1 (participant did not receive Dose 2) and Days 3, 9, and 48 after Dose 2. In the placebo group the onset of facial paralysis was Day 32 and Day 102. Currently available information is insufficient to determine a causal relationship with the vaccine. In the analysis of blinded, placebo-controlled follow-up, there were no other notable patterns or numerical imbalances between treatment groups for specific categories of non-serious adverse events (including other neurologic or neuro-inflammatory, and thrombotic events) that would suggest a causal relationship to COMIRNATY. In the analysis of unblinded follow-up, there were no notable patterns of specific categories of non-serious adverse events (complete the complete the treatment of the suggest a causal relationship to COMIRNATY.

Serious Adverse Events

In Study 2, among participants 16 through 55 years of age who had received at least 1 dose of vaccine or placebo (COMIRNATY =12,995; placebo = 13,026), serious adverse events from Dose 1 up to the participant unblinding date in ongoing follow-up were reported by 103 (0.8%) COMIRNATY recipients and 117 (0.9%) placebo recipients. In a similar analysis, in participants 56 years of age and older (COMIRNATY = 8,931; placebo = 8,895), serious adverse events were reported by 165 (1.8%) COMIRNATY recipients and 151 (1.7%) placebo recipients who received at least 1 dose of COMIRNATY or placebo, respectively. In these analyses, 58.2% of study participants had at least 4 months of follow-up after Dose 2. Among participants with confirmed stable HIV infection serious adverse events from Dose 1 up to the participant unblinding date in ongoing follow-up were reported by 2 (2%) COMIRNATY recipients and 2 (2%) placebo recipients.

In the analysis of blinded, placebo-controlled follow-up, there were no notable patterns between treatment groups for specific categories of serious adverse events (including neurologic, neuro-inflammatory, and thrombotic events) that would suggest a causal relationship to COMIRNATY. In the analysis of unblinded follow-up, there were no notable patterns of specific categories of serious adverse events that would suggest a causal relationship to COMIRNATY. In the COMIRNATY.

6.2 Postmarketing Experience

The following adverse reactions have been identified during postmarketing use of COMIRNATY, including under Emergency Use Authorization. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to vaccine exposure.

Cardiac Disorders: myocarditis, pericarditis

Gastrointestinal Disorders: diarrhea, vomiting

Immune System Disorders: severe allergic reactions, including anaphylaxis, and other hypersensitivity reactions (e.g., rash, pruritus, urticaria, angioedema)

Musculoskeletal and Connective Tissue Disorders: pain in extremity (arm)

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to COMIRNATY during pregnancy. Women who are vaccinated with COMIRNATY during pregnancy are encouraged to enroll in the registry by visiting https://mothertobaby.org/ongoing-study/covid19-vaccines/.

Risk Summary

All pregnancies have a risk of birth defect, loss, or other adverse outcomes. In the US general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively. Available data on COMIRNATY administered to pregnant women are insufficient to inform vaccine-associated risks in pregnancy.

A developmental toxicity study has been performed in female rats administered the equivalent of a single human dose of COMIRNATY on 4 occasions; twice prior to mating and twice during gestation. These studies revealed no evidence of harm to the fetus due to the vaccine *(see Animal Data)*.

Data

Animal Data

In a developmental toxicity study, 0.06 mL of a vaccine formulation containing the same quantity of nucleoside-modified messenger ribonucleic acid (mRNA) (30 mcg) and other ingredients included in a single human dose of COMIRNATY was administered to female rats by the intramuscular route on 4 occasions: 21 and 14 days prior to mating, and on gestation days 9 and 20. No vaccine-related adverse effects on female fertility, fetal development, or postnatal development were reported in the study.

8.2 Lactation

Risk Summary

It is not known whether COMIRNATY is excreted in human milk. Data are not available to assess the effects of COMIRNATY on the breastfed infant or on milk production/excretion. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for COMIRNATY and any potential adverse effects on the breastfed child from COMIRNATY or from the underlying maternal condition. For preventive vaccines, the underlying maternal condition is susceptibility to disease prevented by the vaccine.

8.4 Pediatric Use

Safety and effectiveness of COMIRNATY in individuals 16 through 17 years of age is based on safety and effectiveness data in this age group and in adults [see Adverse Reactions (6) and Clinical Studies (14.1)].

The safety and effectiveness of COMIRNATY in individuals younger than 16 years of age have not been established.

8.5 Geriatric Use

Of the total number of COMIRNATY recipients in Study 2 as of March 13, 2021 (N = 22,026), 20.7% (n = 4,552) were 65 years of age and older and 4.2% (n = 925) were 75 years of age and older *[see Clinical Studies (14.1)]*. No overall differences in safety or effectiveness were observed between these recipients and younger recipients.

11 DESCRIPTION

COMIRNATY (COVID-19 Vaccine, mRNA) is a sterile suspension for injection for intramuscular use. COMIRNATY is supplied as a frozen suspension in multiple dose vials with gray caps and labels with gray borders. Each 0.3 mL dose of COMIRNATY supplied in multiple dose vials with gray caps and labels with gray copy and labels with gray borders contains 30 mcg of a nucleoside-modified messenger RNA (mRNA) encoding the viral spike (S) glycoprotein of SARS-CoV-2.

Each 0.3 mL dose of the COMIRNATY supplied in multiple dose vials with gray caps and labels with gray borders also includes the following ingredients: lipids (0.43 mg ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate), 0.05 mg 2-(polyethylene glycol 2000)-N,N-ditetradecylacetamide, 0.09 mg 1,2-distearoyl-sn-glycero-3-phosphocholine, and 0.19 mg cholesterol), 0.06 mg tromethamine, 0.4 mg tromethamine hydrochloride, and 31 mg sucrose.

COMIRNATY does not contain preservative.

The vial stoppers are not made with natural rubber latex.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

The nucleoside-modified mRNA in COMIRNATY is formulated in lipid particles, which enable delivery of the mRNA into host cells to allow expression of the SARS-CoV-2 S antigen. The vaccine elicits an immune response to the S antigen, which protects against COVID-19.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

COMIRNATY has not been evaluated for the potential to cause carcinogenicity, genotoxicity, or impairment of male fertility. In a developmental toxicity study in rats with COMIRNATY there were no vaccine-related effects on female fertility [see Use in Specific Populations (8.1)].

14 CLINICAL STUDIES

Efficacy in Participants 16 Years of Age and Older

Study 2 is an ongoing, multicenter, multinational, randomized, placebo-controlled, observer-blind, dose-finding, vaccine candidate-selection, and efficacy study in participants 12 years of age and older. Randomization was stratified by age: 12 through 15 years of age, 16 through 55 years of age, or 56 years of age and older, with a minimum of 40% of participants in the \geq 56-year stratum. The study excluded participants who were immunocompromised and those who had previous clinical or microbiological diagnosis of COVID-19. Participants with preexisting stable disease, defined as disease not requiring significant change in therapy or hospitalization for worsening disease during the 6 weeks before enrollment, were included as were participants with known stable infection with HIV, hepatitis C virus (HCV), or hepatitis B virus (HBV).

In Study 2, based on data accrued through March 13, 2021, approximately 44,000 participants 16 years of age and older were randomized equally and received 2 doses of COMIRNATY or placebo. Participants are planned to be followed for up to 24 months, for assessments of safety and efficacy against COVID-19.

Overall, among the total participants who received COMIRNATY or placebo, 51.4% or 50.3% were male and 48.6% or 49.7% were female, 79.1% or 79.2% were 16 through 64 years of age, 20.9% or 20.8% were 65 years of age and older, 81.9% or 82.1% were White, 9.5% or 9.6% were Black or African American, 1.0% or 0.9% were American Indian or Alaska Native, 4.4% or 4.3% were Asian, 0.3% or 0.2% Native Hawaiian or other Pacific

Islander, 25.6% or 25.4% were Hispanic/Latino, 73.9% or 74.1% were non-Hispanic/Latino, 0.5% or 0.5% did not report ethnicity, 46.0% or 45.7% had comorbidities [participants who have 1 or more comorbidities that increase the risk of severe COVID-19 disease: defined as subjects who had at least 1 of the Charlson comorbidity index category or body mass index (BMI) \geq 30 kg/m²], respectively. The mean age at vaccination was 49.8 or 49.7 years and median age was 51.0 or 51.0 in participants who received COMIRNATY or placebo, respectively.

Efficacy Against COVID-19

The population for the analysis of the protocol pre-specified primary efficacy endpoint included 36,621 participants 12 years of age and older (18,242 in the COMIRNATY group and 18,379 in the placebo group) who did not have evidence of prior infection with SARS-CoV-2 through 7 days after the second dose. The population in the protocol pre-specified primary efficacy analysis included all participants 12 years of age and older who had been enrolled from July 27, 2020, and followed for the development of COVID-19 through November 14, 2020. Participants 18 through 55 years of age and 56 years of age and older began enrollment from July 27, 2020, 16 through 17 years of age began enrollment from September 16, 2020, and 12 through 15 years of age began enrollment from October 15, 2020.

For participants without evidence of SARS-CoV-2 infection prior to 7 days after Dose 2, vaccine efficacy against confirmed COVID-19 occurring at least 7 days after Dose 2 was 95.0% (95% credible interval: 90.3, 97.6), which met the pre-specified success criterion. The case split was 8 COVID-19 cases in the COMIRNATY group compared to 162 COVID-19 cases in the placebo group.

The population for the updated vaccine efficacy analysis included participants 16 years of age and older who had been enrolled from July 27, 2020, and followed for the development of COVID-19 during blinded placebo-controlled follow-up through March 13, 2021, representing up to 6 months of follow-up after Dose 2. There were 12,796 (60.8%) participants in the COMIRNATY group and 12,449 (58.7%) in the placebo group followed for \geq 4 months after Dose 2 in the blinded placebo-controlled follow-up period.

SARS-CoV-2 variants of concern identified from COVID-19 cases in this study include B.1.1.7 (Alpha) and B.1.351 (Beta). Representation of identified variants among cases in vaccine versus placebo recipients did not suggest decreased vaccine effectiveness against these variants.

The updated vaccine efficacy information is presented in Table 5.

Table 5: Vaccine Efficacy – First COVID-19 Occurrence From 7 Days After Dose 2, by Age Subgroup – Participants 16 Years of Age and Older Without Evidence of Infection and Participants With or Without Evidence of Infection Prior to 7 Days After Dose 2 – Evaluable Efficacy (7 Days) Population During the Placebo-Controlled Follow-up Period

First COVID-19 occurrence	from 7 days after Dose 2 in partici	pants without evidence of prior	SARS-CoV-2 infection*
Subgroup	COMIRNATY N [†] =19,993 Cases n1 [‡] Surveillance Time [§] (n2 [¶])	Placebo N [†] =20,118 Cases n1 [‡] Surveillance Time [§] (n2 [¶])	Vaccine Efficacy % (95% CI [#])
All participants	77	833	91.1
	6.092 (19,711)	5.857 (19,741)	(88.8, 93.1)
16 through 64 years	70	709	90.5
	4.859 (15,519)	4.654 (15,515)	(87.9, 92.7)
65 years and older	7	124	94.5
	1.233 (4192)	1.202 (4226)	(88.3, 97.8)
First COVID-19 occurrence from	n 7 days after Dose 2 in participan	ts with or without [*] evidence of p	orior SARS-CoV-2 infection
Subgroup	COMIRNATY N [†] =21,047 Cases n1 [‡] Surveillance Time [§] (n2 [¶])	Placebo N [†] =21,210 Cases n1 [‡] Surveillance Time [§] (n2¶)	Vaccine Efficacy % (95% CI [#])
All participants	81	854	90.9
	6.340 (20,533)	6.110 (20,595)	(88.5, 92.8)
16 through 64 years	74	726	90.2
	5.073 (16,218)	4.879 (16,269)	(87.5, 92.4)
65 years and older	7	128	94.7
	1.267 (4315)	1.232 (4326)	(88.7, 97.9)

Note: Confirmed cases were determined by Reverse Transcription-Polymerase Chain Reaction (RT-PCR) and at least 1 symptom consistent with COVID-19 (symptoms included: fever; new or increased cough; new or increased shortness of breath; chills; new or increased muscle pain; new loss of taste or smell; sore throat; diarrhea; vomiting).

* Participants who had no evidence of past SARS-CoV-2 infection (i.e., N-binding antibody [serum] negative at Visit 1 and SARS-CoV-2 not detected by NAAT [nasal swab] at Visits 1 and 2), and had negative NAAT (nasal swab) at any unscheduled visit prior to 7 days after Dose 2 were included in the analysis.

^{\dagger} N = Number of participants in the specified group.

 \ddagger n1 = Number of participants meeting the endpoint definition.

§ Total surveillance time in 1000 person-years for the given endpoint across all participants within each group at risk for the endpoint. Time period for COVID-19 case accrual is from 7 days after Dose 2 to the end of the surveillance period.

¶ n2 = Number of participants at risk for the endpoint.

[#] Two-sided confidence interval (CI) for vaccine efficacy is derived based on the Clopper and Pearson method adjusted to the surveillance time.

Subgroup analyses of vaccine efficacy (although limited by small numbers of cases in some subgroups) did not suggest meaningful differences in efficacy across genders, ethnic groups, geographies, or for participants with obesity or medical comorbidities associated with high risk of severe COVID-19.

Efficacy Against Severe COVID-19

Efficacy analyses of secondary efficacy endpoints supported benefit of COMIRNATY in preventing severe COVID-19. Vaccine efficacy against severe COVID-19 is presented only for participants with or without prior SARS-CoV-2 infection (Table 6) as the COVID-19 case counts in participants without prior SARS-CoV-2 infection were the same as those in participants with or without prior SARS-CoV-2 infection in both the COMIRNATY and placebo groups.

Table 6: Vaccine Efficacy – First Severe COVID-19 Occurrence in Participants 16 Years of Age and Older With or Without^{*} Prior SARS-CoV-2 Infection Based on Protocol[†] or Centers for Disease Control and Prevention (CDC)[‡] Definition From 7 Days After Dose 2 – Evaluable Efficacy (7 Days) Population During the Placebo-Controlled Follow-up

	Vaccine Efficacy – First Severe	e COVID-19 Occurrence	
	COMIRNATY Cases n1 [§] Surveillance Time [¶] (n2 [#])	Placebo Cases n1 [§] Surveillance Time [¶] (n2 [#])	Vaccine Efficacy % (95% CI ^Þ)
7 days after Dose 2 ^b	1 6.353 (20,540)	21 6.237 (20,629)	95.3 (70.9, 99.9)
Vacci	<u>ne Efficacy – First Severe COVID-19</u>	Occurrence Based on CDC Defin	ition
	COMIRNATY Cases n1 [§] Surveillance Time [¶] (n2 [#])	Placebo Cases n1 [§] Surveillance Time [¶] (n2 [#])	Vaccine Efficacy % (95% CI ^Þ)
7 days after Dose 2 ^b	0 6.345 (20,513)	31 6.225 (20,593)	100 (87.6, 100.0)

Note: Confirmed cases were determined by Reverse Transcription-Polymerase Chain Reaction (RT-PCR) and at least 1 symptom consistent with COVID-19 (symptoms included: fever; new or increased cough; new or increased shortness of breath; chills; new or increased muscle pain; new loss of taste or smell; sore throat; diarrhea; vomiting).

- * Participants who had no evidence of past SARS-CoV-2 infection (i.e., N-binding antibody [serum] negative at Visit 1 and SARS-CoV-2 not detected by NAAT [nasal swab] at Visits 1 and 2), and had negative NAAT (nasal swab) at any unscheduled visit prior to 7 days after Dose 2 were included in the analysis.
- Severe illness from COVID-19 is defined in the protocol as confirmed COVID-19 and presence of at least 1 of the following:
- Clinical signs at rest indicative of severe systemic illness (respiratory rate ≥30 breaths per minute, heart rate ≥125 beats per minute, saturation of oxygen ≤93% on room air at sea level, or ratio of arterial oxygen partial pressure to fractional inspired oxygen <300 mm Hg);
- Respiratory failure [defined as needing high-flow oxygen, noninvasive ventilation, mechanical ventilation or extracorporeal membrane oxygenation (ECMO)];
- Evidence of shock (systolic blood pressure <90 mm Hg, diastolic blood pressure <60 mm Hg, or requiring vasopressors);
- Significant acute renal, hepatic, or neurologic dysfunction;
- Admission to an Intensive Care Unit;
- Death.

Severe illness from COVID-19 as defined by CDC is confirmed COVID-19 and presence of at least 1 of the following:

- Hospitalization;
- Admission to the Intensive Care Unit;
- Intubation or mechanical ventilation;
- Death.
- 1 = Number of participants meeting the endpoint definition.
- Total surveillance time in 1000 person-years for the given endpoint across all participants within each group at risk for the endpoint. Time period for COVID-19 case accrual is from 7 days after Dose 2 to the end of the surveillance period.
- # n2 = Number of participants at risk for the endpoint.
- ^b Two-side confidence interval (CI) for vaccine efficacy is derived based on the Clopper and Pearson method adjusted to the surveillance time.

16 HOW SUPPLIED/STORAGE AND HANDLING

COMIRNATY Suspension for Intramuscular Injection, multiple dose vials with gray caps and labels with gray borders are supplied in a carton containing 10 multiple dose vials (NDC 0069-2025-10) or 25 multiple dose vials (NDC 0069-2025-25).

One vial contains 6 doses of 0.3 mL.

During storage, minimize exposure to room light, and avoid exposure to direct sunlight and ultraviolet light.

Do not refreeze thawed vials.

Vial Storage Prior to Use

Cartons of COMIRNATY multiple dose vials with gray caps and labels with gray borders will arrive frozen at ultra-cold conditions in thermal containers with dry ice.

Once received, frozen vials may be immediately transferred to the refrigerator $[2^{\circ}C \text{ to } 8^{\circ}C (35^{\circ}F \text{ to } 46^{\circ}F)]$, thawed and stored for up to 10 weeks. The 10-week refrigerated expiry date should be recorded on the carton at the time of transfer. A carton of 10 vials may take up to 6 hours to thaw at this temperature.

Alternatively, frozen vials may be stored in an ultra-low temperature freezer at -90°C to -60°C ($-130^{\circ}F$ to -76°F). Do not store vials at -25°C to -15°C ($-13^{\circ}F$ to 5°F). Once vials are thawed, they should not be refrozen.

If cartons of COMIRNATY multiple dose vials with gray caps and labels with gray borders are received at 2°C to 8°C, they should be stored at 2°C to 8°C. Check that the carton has been updated to reflect the 10-week refrigerated expiry date.

Regardless of storage condition, the vaccine should not be used after the expiration date printed on the vial and cartons.

Vial Storage During Use

If not previously thawed at 2°C to 8°C (35°F to 46°F), allow vials to thaw at room temperature [up to 25°C (77°F)] for 30 minutes.

COMIRNATY multiple dose vials with gray caps and labels with gray borders may be stored at room temperature [8°C to 25°C ($46^{\circ}F$ to 77°F)] for a total of 12 hours prior to the first puncture. After first puncture, the vial should be held between 2°C to 25°C ($35^{\circ}F$ to 77°F). Vials should be discarded 12 hours after first puncture.

DO NOT DILUTE PRIOR TO USE.

Transportation of Vials

If local redistribution is needed, vials may be transported at -90°C to -60°C (-130°F to -76°F), or at 2°C to 8°C (35°F to 46°F).

17 PATIENT COUNSELING INFORMATION

Inform vaccine recipient of the potential benefits and risks of vaccination with COMIRNATY.

Inform vaccine recipient of the importance of completing the 2 dose vaccination series.

There is a pregnancy exposure registry for COMIRNATY. Encourage individuals exposed to COMIRNATY around the time of conception or during pregnancy to register by visiting https://mothertobaby.org/ongoing-study/covid19-vaccines/.

Advise vaccine recipient to report any adverse events to their healthcare provider or to the Vaccine Adverse Event Reporting System at 1-800-822-7967 and www.vaers.hhs.gov.

This product's labeling may have been updated. For the most recent prescribing information, please visit https://dailymed.nlm.nih.gov/dailymed/.

Manufactured for BioNTech Manufacturing GmbH An der Goldgrube 12 55131 Mainz, Germany

Phzer

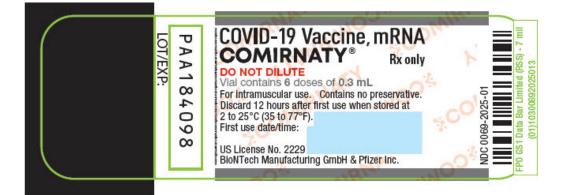
Manufactured by Pfizer Inc., New York, NY 10017 LAB-1490-1.0 US Govt. License No. 2229

PRINCIPAL DISPLAY PANEL - 0.3 mL Vial Label

COVID-19 Vaccine, mRNA COMIRNATY[®] Rx only DO NOT DILUTE Vial contains 6 doses of 0.3 mL For intramuscular use. Contains no preservative. Discard 12 hours after first use when stored at 2 to 25°C (35 to 77°F). First use date/time:

US License No. 2229

BioNTech Manufacturing GmbH & Pfizer Inc.



PRINCIPAL DISPLAY PANEL - 10 Vial Carton

NDC 0069-2025-10

COVID-19 Vaccine, mRNA COMIRNATY®

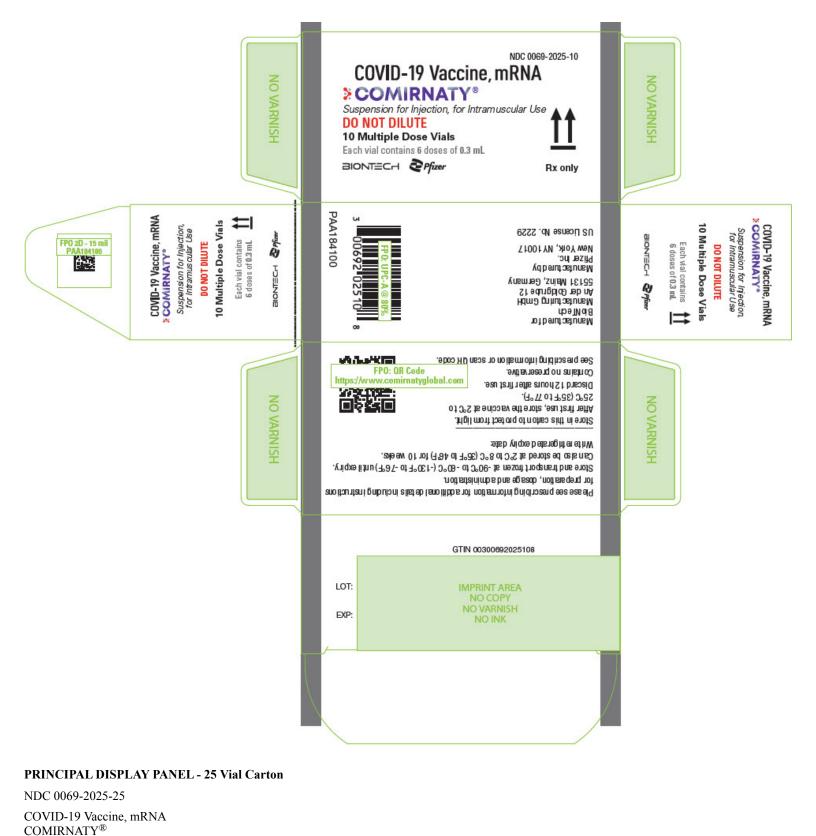
Suspension for Injection, for Intramuscular Use

DO NOT DILUTE

10 Multiple Dose Vials

Each vial contains 6 doses of 0.3 mL

BIONTECH Pfizer Rx only



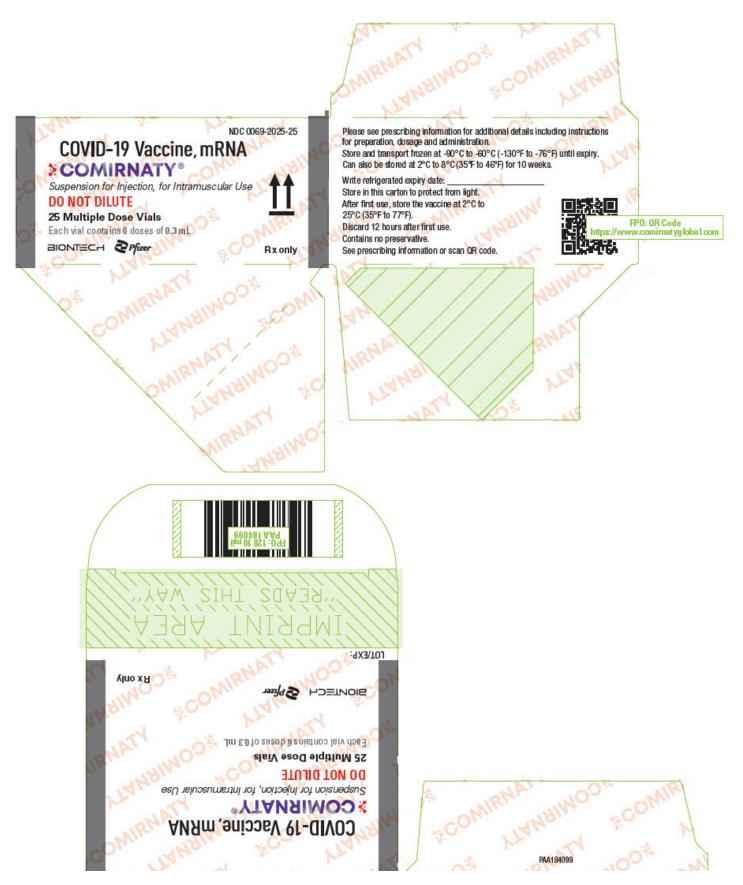
Suspension for Injection, for Intramuscular Use

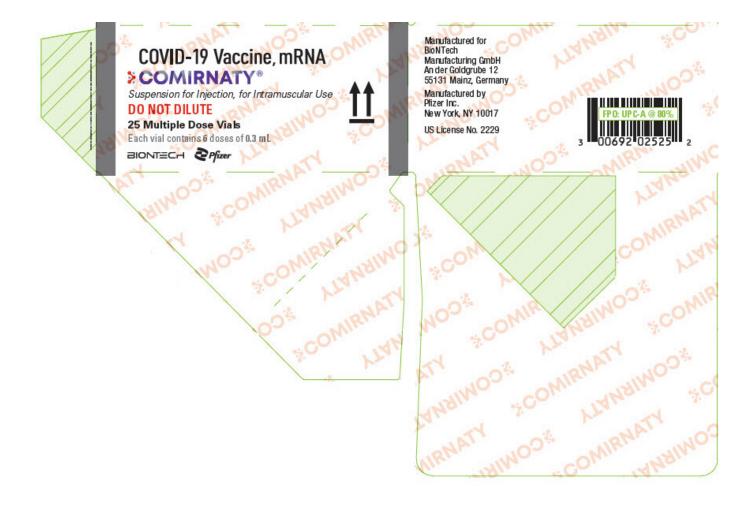
DO NOT DILUTE

25 Multiple Dose Vials

Each vial contains 6 doses of 0.3 mL

BIONTECH Pfizer Rx only





COMIRNATY				
covid-19 vaccine, mrna injection, susp	ension			
Product Information				
Product Type	VACCINE	Item Code (Source)	١	IDC:0069-2025
Route of Administration	INTRAMUSCULAR			
Active Ingredient/Active Moiety				
	Ingredient Name	Basis of	Strength	Strength
TOZINAMERAN (UNII: 5085ZFP6SJ) (TOZI	FOZINAMERAN (UNII: 5085ZFP6SJ) (TOZINAMERAN - UNII:5085ZFP6SJ)			0.225 mg in 2.25 mL
Inactive Ingredients				
	Ingredient Name			
				Strength
ALC-0159 (UNII: PJH39UMU6H)			0.4	Strength mg in 2.25 mL
ALC-0159 (UNII: PJH39UMU6H) ALC-0315 (UNII: AVX8DX713V)				0
· · · · · · · · · · · · · · · · · · ·			3.22	mg in 2.25 mL
ALC-0315 (UNII: AVX8DX713V)			3.22 231	mg in 2.25 mL mg in 2.25 mL
ALC-0315 (UNII: AVX8DX713V) SUCROSE (UNII: C151H8M554)			3.22 231 0.7	mg in 2.25 mL 8 mg in 2.25 mL
ALC-0315 (UNII: AVX8DX713V) SUCROSE (UNII: C151H8M554) 1,2-DISTEAROYL-SN-GLYCERO-3-PHOS			3.22 231 0.7	mg in 2.25 mL mg in 2.25 mL 8 mg in 2.25 mL mg in 2.25 mL
ALC-0315 (UNII: AVX8DX713V) SUCROSE (UNII: C151H8M554) 1,2-DISTEAROYL-SN-GLYCERO-3-PHOS CHOLESTEROL (UNII: 97C5T2UQ7J)			3.22 231 0.7 1.4	mg in 2.25 mL mg in 2.25 mL 8 mg in 2.25 mL mg in 2.25 mL

Packaging								
# Item Code		Pac	ckage Description	n		Marketing Sta	rt Date	Marketing End Date
1 NDC:0069-2025-10	10 in 1 CARTON		-			_		
1 NDC:0069-2025-01	2.25 mL in 1 VIAL	, GLASS; Type 0: N	ot a Combination Pro	oduct				
2 NDC:0069-2025-25	25 in 1 CARTON							
2 NDC:0069-2025-01	2.25 mL in 1 VIAL	, GLASS; Type 0: No	ot a Combination Pro	oduct				
Marketing Informa	ation							
Marketing Category		Application N	Number or Monog	raph Citatio	n	Marketing Start	Date	Marketing End Date
BLA	BLA125742					12/22/2021		
L abeler - Pfizer Laborato Registrant - Pfizer Inc (134489525)						
Establishment								
Name	Ado	dress ID/FEI				Business Operation	8	
fizer Manufacturing Belgium NV	7	370156507	ANALYSIS(00	69-2025) , MA	NUFACTURE(0069	9-2025), PACK(0069-2025)	LABEL(0069-2	2025)
Establishment	N							
Vyeth BioPharma Division of Wy	Name reth Pharmaceuticals I	LLC	Ad		ID/FEI 350868 ANAI	YSIS(0069-2025) , API MA	Business Oper	
Establishment								
Name		Address		ID/FEI]	Business Oper	ations
fizer Inc			004954111		ANA	LYSIS(0069-2025)		
Establishment abor LS SE & Co. KG Establishment	Name		Address	3149	ID/FEI 29072	ANALYSIS(006		ess Operations
Name	I	Address	ID/FEI	I		Business Op	erations	
Rentschler Biopharma SE		31	3166479	ANALYSIS(0069-2025) , API M.	ANUFACTURE(0069-2025)		
Establishment								
	Name		Δ	Address	ID/	FEI	Rue	iness Operations
fizer Ireland Pharmaceuticals					985586408	1	S(0069-2025)	operations
nzer nerand i natiliaceutedis					705500400	ANALISI	5(0007-2025)	
Establishment								
	N	ame			Address	ID/FEI		Business Operations
ioNTech Innovative Manufactur						537365801	ANALYSIS	5(0069-2025)
						0000001		
Establishment							0	
Name		Address	1	1			Operations	
ioNTech Manufacturing GmbH			314382536	ANAI	LYSIS(0069-2025),	API MANUFACTURE(0069	-2025)	
Establishment								
Ν	ame		Address	ID/FEI		Busin	ess Operation	s
BioNTech Manufacturing Marburg	g GmbH		3132	70335	ANALYSIS(0069-	2025) , API MANUFACTUF	RE(0069-2025)	
Revised: 12/2021								Pfizer Laboratories Div Pfiz