

FULL EMERGENCY USE AUTHORIZATION (EUA) PRESCRIBING INFORMATION

MODERNA COVID-19 VACCINE

FULL EUA PRESCRIBING INFORMATION: CONTENTS*

1 AUTHORIZED USE

2 DOSAGE AND ADMINISTRATION

2.1 Dosing and Schedule

2.2 Dose Preparation

2.3 Administration Information

3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

5 WARNINGS AND PRECAUTIONS

5.1 Managing Allergic Reactions

5.2 Altered Immunocompetence

5.3 Limitations of Vaccine Effectiveness

6 OVERALL SAFETY SUMMARY

6.1 Clinical Trials Experience

7 ADVERSE EVENTS AND VACCINE ADMINISTRATION

ERRORS REPORTING REQUIREMENTS AND INSTRUCTIONS

8 DRUG INTERACTIONS

9 USE IN SPECIFIC POPULATIONS

9.1 Pregnancy

9.2 Lactation

9.3 Pediatric Use

9.4 Geriatric Use

10 DESCRIPTION

11 CLINICAL PHARMACOLOGY

11.1 Mechanism of Action

12 CLINICAL TRIAL RESULTS AND

SUPPORTING DATA FOR EUA

13 HOW SUPPLIED/STORAGE AND HANDLING

14 PATIENT COUNSELING INFORMATION

15 CONTACT INFORMATION

*Sections or subsections omitted from the full
prescribing information are not listed

FULL EMERGENCY USE AUTHORIZATION (EUA) PRESCRIBING INFORMATION

1 AUTHORIZED USE

Moderna COVID-19 Vaccine is authorized for use under an Emergency Use Authorization (EUA) for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 18 years of age and older.

2 DOSAGE AND ADMINISTRATION

2.1 Dosing and Schedule

The Moderna COVID-19 Vaccine is administered intramuscularly as a series of two doses (0.5 mL each). The second dose is administered 1 month after the first dose.

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

2.2 Dose Preparation

- The Moderna COVID-19 Vaccine multiple-dose vial contains a frozen suspension that does not contain preservative and must be thawed prior to administration.
- Thaw in refrigerated conditions between 2° to 8°C (36° to 46°F) for 2 hours and 30 minutes. Let vial stand at room temperature for 15 minutes before administering.
- Alternatively, thaw at room temperature between 15° to 25°C (59° to 77°F) for 1 hour.
- After thawing, do not return the vial to the freezer.
- Swirl vial gently after thawing and between each withdrawal. **Do not shake.** Do not dilute the vaccine.
- Moderna COVID-19 Vaccine is a white to off-white suspension. It may contain white or translucent product-related particulates. Inspect Moderna COVID-19 Vaccine vials visually for other particulate matter and/or discoloration prior to administration. If either of these conditions exists, the vaccine should not be administered.
- A maximum of 10 doses can be withdrawn from the multiple-dose vial.
- After the first dose has been withdrawn, the vial should be held between 2° to 25°C (36° to 77°F). Record the date and time for first use on the Moderna COVID-19 Vaccine vial label. Discard vial after 6 hours. Do not refreeze.

2.3 Administration Information

Visually inspect each dose of Moderna COVID-19 Vaccine in the dosing syringe prior to administration. During the visual inspection,

- verify the final dosing volume of 0.5 mL.
- confirm there is no discoloration.

If the visual inspection fails, do not administer the vaccine.

Administer the Moderna COVID-19 Vaccine intramuscularly, preferably in the deltoid muscle.

3 DOSAGE FORMS AND STRENGTHS

Moderna COVID-19 Vaccine is a suspension for intramuscular injection. A single dose is 0.5 mL.

4 CONTRAINDICATIONS

Do not administer the Moderna COVID-19 Vaccine to individuals with a known history of severe allergic reaction (e.g., anaphylaxis) to a previous dose of the Moderna COVID-19

Vaccine or any component of the Moderna COVID-19 Vaccine [*see Description (10)*].

5 WARNINGS AND PRECAUTIONS

5.1 Managing Allergic Reactions

Appropriate medical treatment to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration of the Moderna COVID-19 Vaccine.

5.2 Altered Immunocompetence

Immunocompromised persons, including individuals receiving immunosuppressive therapy, may have a diminished response to the Moderna COVID-19 Vaccine.

5.3 Limitations of Vaccine Effectiveness

The Moderna COVID-19 Vaccine may not protect all vaccine recipients.

6 OVERALL SAFETY SUMMARY

It is MANDATORY for vaccination providers to report to the Vaccine Adverse Event Reporting System (VAERS) and to Moderna all vaccine administration errors, all serious adverse events, cases of Multi-inflammatory Syndrome (MIS) in adults, and hospitalized or fatal cases of COVID-19 following vaccination with the Moderna COVID-19 Vaccine. Please see the REQUIREMENTS AND INSTRUCTIONS FOR REPORTING ADVERSE EVENTS AND VACCINE ADMINISTRATION ERRORS section for details on reporting to VAERS and Moderna.

In clinical studies, the adverse reactions in participants 18 years of age and older were pain at the injection site (91.6%), fatigue (68.5%), headache (63.0%), myalgia (59.6%), arthralgia (44.8%), chills (43.4%), gastrointestinal symptoms (22.2%), lymphadenopathy (19.2%), fever (14.8%), swelling at the injection site (14.4%), and erythema at the injection site (9.7%).

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 with rates in the clinical trials of another vaccine and may not reflect the rates observed in practice. Additional adverse reactions, some of which may be serious, may become apparent with more widespread use of the Moderna COVID-19 Vaccine.

Overall, 15,419 subjects aged 18 years and older received at least one dose of Moderna COVID-19 Vaccine in three clinical trials (NCT04283461, NCT04405076, and NCT04470427).

The safety of Moderna COVID-19 Vaccine was evaluated in an ongoing Phase 3 randomized, placebo-controlled, observer-blind clinical trial conducted in the United States involving 30,350 subjects 18 years of age and older who received at least one dose of Moderna COVID-19 Vaccine (n=15,184) or placebo

(n=15,165) administered according to a 0- and 1-month schedule (NCT04470427). At the time of vaccination, the mean age of the population was 51.4 years (range 18-95); 22,830 (75.2%) subjects were 18 to 64 years of age and 7,520 (24.8%) subjects were 65 years of age and older. Overall, 52.7% were male, 20.5% were Hispanic or Latino, and 10.2% were African American.

Solicited Adverse Reactions

Data on solicited local and systemic adverse reactions were collected using standardized diary cards for 7 days following each injection of vaccine or placebo (i.e., day of vaccination and the next 6 days) in a subset of subjects (n=15,176 receiving Moderna COVID-19 Vaccine, n=15,162 receiving placebo with at least 1 documented dose). Solicited adverse reactions were reported more frequently among vaccine subjects than placebo subjects. The percentages of subjects reporting each solicited local adverse reaction and each solicited systemic adverse reaction following administration of Moderna COVID-19 Vaccine (both doses combined) were pain at the injection site (91.6%), lymphadenopathy (19.2%), swelling at the injection site (14.4%), erythema at the injection site (9.7%); and fatigue (68.5%), headache (63.0%), myalgia (59.6%), arthralgia (44.8%), chills (43.4%), gastrointestinal symptoms (22.2%), fever (14.8%), respectively.

The reported frequencies of the solicited local and systemic adverse by age group and overall by subject are presented in [Table 1](#) and [Table 2](#), respectively.

Table 1. Percentage of Subjects with Solicited Local Adverse Reactions within 7 Days* of either Dose of Vaccine/Placebo by Age Group

	Aged 18-64 Years				Aged ≥65 Years				Overall	
	Moderna COVID-19 Vaccine		Placebo ^a		Moderna COVID-19 Vaccine		Placebo ^a		Moderna COVID-19 Vaccine	Placebo ^a
	Dose 1 (N=11,405) n (%)	Dose 2 (N=10,358) n (%)	Dose 1 (N=11,406) n (%)	Dose 2 (N=10,321) n (%)	Dose 1 (N=3,762) n (%)	Dose 2 (N=3,589) n (%)	Dose 1 (N=3,748) n (%)	Dose 2 (N=3,549) n (%)	Any Dose (N=15,176) n (%)	Any Dose (N=15,162) n (%)
Pain	9,908 (86.9)	9,335 (90.1)	2,179 (19.1)	1,942 (18.8)	2,782 (74.0)	2,990 (83.4)	481 (12.8)	421 (11.9)	13,901 (91.6)	3,975 (26.2)
Pain, Grade 3 ^b	367 (3.2)	479 (4.6)	23 (0.2)	21 (0.2)	50 (1.3)	96 (2.7)	32 (0.9)	17 (0.5)	901 (5.9)	90 (0.6)
Lympha-denopathy	1,322 (11.6)	1,654 (16.0)	567 (5.0)	444 (4.3)	231 (6.1)	302 (8.4)	155 (4.1)	90 (2.5)	2,914 (19.2)	1,074 (7.1)
Lympha-denopathy, Grade 3 ^b	36 (0.3)	45 (0.4)	13 (0.1)	10 (<0.1)	12 (0.3)	21 (0.6)	14 (0.4)	8 (0.2)	108 (0.7)	44 (0.3)
Swelling (hardness)	768 (6.7)	1,309 (12.6)	33 (0.3)	35 (0.3)	166 (4.4)	386 (10.8)	19 (0.5)	13 (0.4)	2,183 (14.4)	95 (0.6)
Swelling (hardness), Grade 3 ^c	62 (0.5)	176 (1.7)	3 (<0.1)	4 (<0.1)	20 (0.5)	69 (1.9)	3 (<0.1)	7 (0.2)	318 (2.1)	16 (0.1)
Erythema (redness)	345 (3.0)	928 (9.0)	46 (0.4)	42 (0.4)	86 (2.3)	265 (7.4)	19 (0.5)	13 (0.4)	1,470 (9.7)	114 (0.8)
Erythema (redness),	34 (0.3)	206 (2.0)	11 (<0.1)	12 (0.1)	8 (0.2)	75 (2.1)	2 (<0.1)	3 (<0.1)	319 (2.1)	27 (0.2)

Grade 3 ^c										
----------------------	--	--	--	--	--	--	--	--	--	--

* 7 days included day of vaccination and the subsequent 6 days.

^a Placebo was a saline solution.

^b Grade 3 pain and lymphadenopathy: Defined as any use of prescription pain reliever; prevents daily activity.

^c Grade 3 swelling and erythema: Defined as >100 mm / >10 cm.

Table 2. Percentage of Subjects with Solicited Systemic Adverse Reactions within 7 Days* of either Dose of Vaccine/Placebo by Age Group

	Aged 18-64 Years				Aged ≥65 Years				Overall	
	Moderna COVID-19 Vaccine		Placebo ^a		Moderna COVID-19 Vaccine		Placebo ^a		Moderna COVID-19 Vaccine	Placebo ^a
	Dose 1 (N=11,405) n (%)	Dose 2 (N=10,358) n (%)	Dose 1 (N=11,406) n (%)	Dose 2 (N=10,321) n (%)	Dose 1 (N=3,762) n (%)	Dose 2 (N=3,589) n (%)	Dose 1 (N=3,748) n (%)	Dose 2 (N=3,549) n (%)	Any Dose (N=15,176) n (%)	Any Dose (N=15,162) n (%)
Fatigue	4,384 (38.5)	7,002 (67.6)	3,282 (28.8)	2,530 (24.5)	1,251 (33.3)	2,094 (58.4)	851 (22.7)	695 (19.6)	10,393 (68.5)	5,470 (36.1)
Fatigue, Grade 3 ^b	120 (1.1)	1,099 (10.6)	83 (0.7)	81 (0.8)	30 (0.8)	248 (6.9)	23 (0.6)	20 (0.6)	1,451 (9.6)	197 (1.3)
Fatigue, Grade 4 ^c	1 (<0.1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (<0.1)	0 (0)
Headache	4,031 (35.4)	6,500 (62.8)	3,303 (29.0)	2,617 (25.4)	921 (24.5)	1,665 (46.4)	724 (19.3)	635 (17.9)	9,566 (63.0)	5,527 (36.5)
Headache, Grade 3 ^d	219 (1.9)	515 (5.0)	162 (1.4)	124 (1.2)	52 (1.4)	107 (3.0)	34 (0.9)	32 (0.9)	833 (5.5)	337 (2.2)
Myalgia	2,698 (23.7)	6,353 (61.3)	1,626 (14.3)	1,312 (12.7)	743 (19.8)	1,683 (46.9)	443 (11.8)	385 (10.8)	9,039 (59.6)	3,052 (20.1)
Myalgia, Grade 3 ^b	73 (0.6)	1,032 (10.0)	38 (0.3)	39 (0.4)	17 (0.5)	201 (5.6)	9 (0.2)	10 (0.3)	1,302 (8.6)	95 (0.6)
Arthralgia	1,892 (16.6)	4,685 (45.2)	1,327 (11.6)	1,087 (10.5)	618 (16.4)	1,252 (34.9)	456 (12.2)	381 (10.7)	6,803 (44.8)	2,606 (17.2)
Arthralgia, Grade 3 ^b	47 (0.4)	603 (5.8)	29 (0.3)	36 (0.3)	13 (0.3)	122 (3.4)	8 (0.2)	7 (0.2)	771 (5.1)	79 (0.5)
Arthralgia, Grade 4 ^c	1 (<0.1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (<0.1)	0 (0)
Chills	1,051 (9.2)	5,001 (48.3)	730 (6.4)	611 (5.9)	202 (5.4)	1,099 (30.6)	148 (4.0)	144 (4.1)	6,580 (43.4)	1,439 (9.5)
Chills, Grade 3 ^e	17 (0.1)	151 (1.5)	8 (<0.1)	14 (0.1)	7 (0.2)	27 (0.8)	6 (0.2)	2 (<0.1)	199 (1.3)	30 (0.2)
Gastro-intestinal symptoms ^f	1,069 (9.4)	2,209 (21.3)	908 (8.0)	754 (7.3)	194 (5.2)	425 (11.8)	166 (4.4)	129 (3.6)	3,366 (22.2)	1,679 (11.1)
Gastro-intestinal symptoms, Grade 3 ^{f,g}	6 (<0.1)	8 (<0.1)	8 (<0.1)	8 (<0.1)	4 (0.1)	10 (0.3)	4 (0.1)	3 (<0.1)	27 (0.2)	23 (0.2)
Gastro-intestinal symptoms, Grade 4 ^{f,h}	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (<0.1)	0 (0)	0 (0)	1 (<0.1)	0 (0)
Fever	105 (0.9)	1,806 (17.4)	39 (0.3)	38 (0.4)	10 (0.3)	366 (10.2)	7 (0.2)	5 (0.1)	2,252 (14.8)	88 (0.6)

Fever, Grade 3 ⁱ	10 (<0.1)	168 (1.6)	1 (<0.1)	1 (<0.1)	1 (<0.1)	18 (0.5)	1 (<0.1)	0 (0)	196 (1.3)	3 (<0.1)
Fever, Grade 4 ^j	4 (<0.1)	10 (<0.1)	4 (<0.1)	2 (<0.1)	0 (0)	1 (<0.1)	2 (<0.1)	1 (<0.1)	15 (<0.1)	9 (<0.1)

* 7 days included day of vaccination and the subsequent 6 days.

^a Placebo was a saline solution.

^b Grade 3 fatigue, myalgia, arthralgia: Defined as significant; prevents daily activity.

^c Grade 4 fatigue, arthralgia: Defined as requires emergency room visit or hospitalization.

^d Grade 3 headache: Defined as significant; any use of prescription pain reliever or prevents daily activity

^e Grade 3 chills: Defined as prevents daily activity and requires medical intervention

^f Gastrointestinal symptoms = nausea, vomiting, diarrhea, and/or abdominal pain.

^g Grade 3 gastrointestinal symptoms: Defined as prevents daily activity, requires outpatient intravenous hydration

^h Grade 4 gastrointestinal symptoms: Defined as requires emergency room visit or hospitalization for hypotensive shock.

ⁱ Grade 3 fever: Defined as $\geq 39.0 - \leq 40.0^{\circ}\text{C}$ / $\geq 102.1 - \leq 104.0^{\circ}\text{F}$

^j Grade 4 fever: Defined as $> 40.0^{\circ}\text{C}$ / $> 104.0^{\circ}\text{F}$

The majority of solicited local and systemic adverse reactions seen with Moderna COVID-19 Vaccine had a median duration of 2 to 3 days.

Grade 3 solicited local adverse reactions were more frequently reported after Dose 2 than Dose 1. Solicited systemic adverse reactions were more frequently reported by vaccine subjects after Dose 2 than after Dose 1.

Unsolicited Adverse Events

Unsolicited adverse events that occurred within 28 days following each vaccination were reported by 21.9% of subjects (n=3,325) who received Moderna COVID-19 Vaccine and 19.4% of subjects (n=2,949) who received placebo (total vaccination cohort).

Serious Adverse Events

Serious adverse events were reported by 0.5% of subjects who received Moderna COVID-19 Vaccine and 0.6% of subjects who received placebo from the first administered dose up to 28 days following the last injection. Serious adverse events were reported at similar rates in subjects who received Moderna COVID-19 Vaccine (0.7%) and placebo (0.8%) from the first administered dose until last observation.

Deaths

From the first administered dose up until the last observation, four deaths ($<0.1\%$) have been reported in subjects who received Moderna COVID-19 Vaccine and four deaths ($<0.1\%$) in subjects who received placebo. The causes of death were similar to the types of events typically reported in an adult and elderly population.

7 REQUIREMENTS AND INSTRUCTIONS FOR REPORTING ADVERSE EVENTS AND VACCINE ADMINISTRATION ERRORS

See Overall Safety Summary ([Section 6](#)) for additional information.

The vaccination provider enrolled in the federal COVID-19 Vaccination Program is responsible for the MANDATORY reporting of the listed events following Moderna COVID-19 Vaccine to the Vaccine Adverse Event Reporting System (VAERS) and to Moderna:

- Vaccine administration errors whether or not associated with an adverse event
- Serious adverse events* (irrespective of attribution to vaccination)
- Cases of multisystem inflammatory syndrome (MIS) in adults
- Cases of COVID-19 that results in hospitalization or death

*Serious Adverse Events are defined as:

- Death;
- A life-threatening adverse event;
- Inpatient hospitalization or prolongation of existing hospitalization;
- A persistent or significant incapacity or substantial disruption of the ability to conduct normal life functions;
- A congenital anomaly/birth defect;
- An important medical event that based on appropriate medical judgement may jeopardize the individual and may require medical or surgical intervention to prevent one of the outcomes listed above.

Instructions for reporting to VAERS

The vaccination provider enrolled in the federal COVID-19 Vaccination Program should complete and submit a VAERS form to FDA using one of the following methods:

- Complete and submit the report online: <https://vaers.hhs.gov/reportevent.html>, or
- If you are unable to submit this form electronically, you may fax it to VAERS at 1-877- 721-0366. If you need additional help submitting a report, you may call the VAERS toll- free information line at 1-800-822-7967 or send an email to info@vaers.org.

IMPORTANT: When reporting adverse events or vaccine administration errors to VAERS, please complete the entire form with detailed information. It is important that the information reported to FDA be as detailed and complete as possible. Information to include:

- Patient demographics (e.g., patient name, date of birth)
- Pertinent medical history
- Pertinent details regarding admission and course of illness
- Concomitant medications
- Timing of adverse event(s) in relationship to administration of Moderna COVID-19 Vaccine
- Pertinent laboratory and virology information
- Outcome of the event and any additional follow-up information if it is available at the time of the VAERS report. Subsequent reporting of follow-up information should be completed if additional details become available.

The following steps are highlighted to provide the necessary information for safety tracking:

1. In Box 17, provide information on Moderna COVID-19 Vaccine and any other vaccines

EUA Full EUA Prescribing Information (Sections 1-8)
MODERNA COVID-19 VACCINE

Draft December 3, 2020

administered on the same day; and in Box 22, provide information on any other vaccines received within one month prior.

2. In Box 18, description of the event:
 - a. Write “Moderna COVID-19 Vaccine EUA” as the first line
 - b. Provide a detailed report of vaccine administration error and/or adverse event. It is important to provide detailed information regarding the patient and adverse event/medication error for ongoing safety evaluation of this unapproved vaccine. Please see information to include listed above.
3. Contact information:
 - a. In Box 13, provide the name and contact information of the prescribing healthcare provider or institutional designee who is responsible for the report.
 - b. In Box 14, provide the name and contact information of the best doctor/healthcare professional to contact about the adverse event.
 - c. In Box 15, provide the address of the facility where vaccine was given (NOT the healthcare provider’s office address).

Instructions for reporting to Moderna

Report to Moderna (contact information below) or provide a copy of the VAERS form to Moderna.

Phone: 1-866-MODERNA (1-866-663-3762)

Fax: 1-866-599-1342

Email: ModernaPV@modernatx.com

Other Reporting Instructions

The vaccination providers may report to VAERS and Moderna other adverse events that are not required to be reported using the contact information above.

8 DRUG INTERACTIONS

There are no data to assess the concomitant administration of the Moderna COVID-19 Vaccine with other vaccines.