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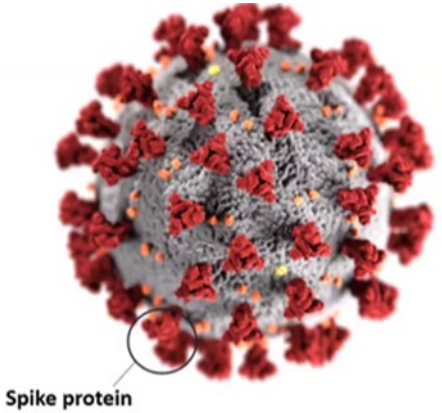
COVID-19 Vaccinator Resources

Pfizer-BioNTech®, Moderna® and Johnson & Johnson-Janssen® COVID-19 Vaccinations

Overview

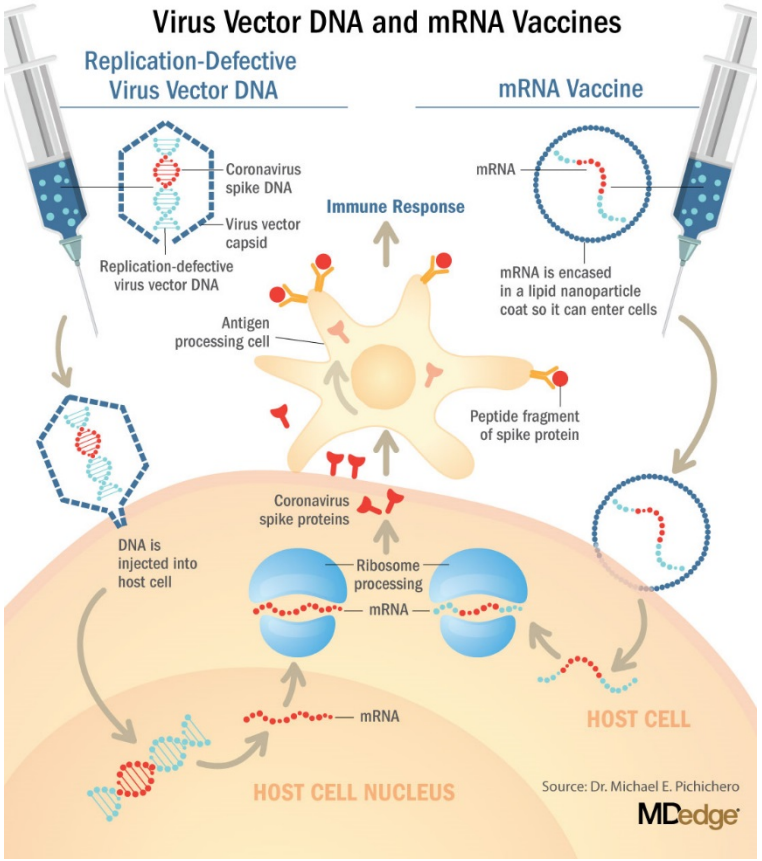
- Overview of mRNA vs. Virus Vector in COVID-19 Vaccines
- FDA-Approved Vaccinations
- Vaccine Screening Questions With Role-Specific Guidance
- Safe Vaccine Ordering, Storage, Preparation and Administration
- Potential Immediate and Delayed Vaccine Reactions
- Management of Severe Allergic Reactions
- Appendixes
  - Special Patient-Specific Populations
  - FAQs
  - How to Administer Vaccines



How Does the COVID-19 Vaccine Work?

CO = Corona **VI** = Virus **D** = Disease – **19** = 2019

Virus Vector DNA (Johnson & Johnson-Janssen®)



Messenger RNA, or mRNA (Pfizer-BioNTech® and Moderna®)

Pichichero, Michael (2020) Understanding messenger RNA and other SARS-CoV-2 vaccines. MDedge, December 4, 2020

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FDA-Approved COVID-19 Vaccines

mRNA (Pfizer-BioNTech and Moderna)

- New technology that has been studied for more than a decade.
- mRNA carries the genetic information that mimics the spike protein of the virus so our cells can learn how to trigger an immune response

Vector (Johnson & Johnson-Janssen)

- Uses a modified version of a different virus (vector) to carry a piece of DNA from the COVID-19 spike protein to the cell so the cell can learn how to trigger an immune response.

True of both vaccine types:

- They do NOT contain a live virus.
- They should NOT be given to someone with COVID-19.
- They were rigorously tested for safety.
- They never enter the nucleus of the cell.
- Your cell breaks down and gets rid of the mRNA or vector after it is finished learning its instructions.

Why get the vaccine?

Vaccination induces antibodies that can block entry of SARS-CoV-2 into cells, thereby preventing disease.

COVID-19 Vaccines

	Pfizer-BioNTech	*Moderna*	*Johnson & Johnson-Janssen*
Age Indications	≥12 years of age (adult clinic would offer to 16+, pediatrics/family medicine practices offer to 12+)	≥18 years of age	≥18 years of age
Dosage	0.3 mL	0.5 mL	0.5 mL
Number of Doses	2*	2*	1
Interval	21 days	28 days	N/A
Administration	Intramuscular (IM)	Intramuscular (IM)	Intramuscular (IM)
How Supplied	MDV: 6 doses	MDV: 11 doses	MDV: 5 doses
Diluent	0.9% sodium chloride (provided in ancillary kit)	None	None
Color	Off-white	White to off-white May contain white or translucent particles	Colorless to slightly yellow Clear to very opalescent
Key Reaction Component	Polyethylene glycol (PEG), found in laxatives and colon preps	Polyethylene glycol (PEG), found in laxatives and colon preps	Polysorbate-80 (sorbitol)

*The second dose should be administered as close to the recommended interval as possible. If this is not possible, the second dose of mRNA COVID-19 vaccine may be scheduled for administration up to 6 weeks (42 days) after the first dose.

Clinics Providing Pfizer-BioNTech Vaccine

- Clinics selected:

  North: Grayslake Family Medicine*

  Northwest: Huntley Medical Office Building*

  West: Aurora Primary Care*

  Kishwaukee: Primary Care DeKalb*

  South: Mokena Primary Care Family Medicine

  Central: Lavin 2150, General Internal Medicine Clinic (Galter 18)

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Vaccine Screening Questions

Per Scope of Practice

Administration of COVID-19 Vaccine at NMG

Scope of Practice

Pfizer Vaccine Workflow	Who Can Administer?		
	RN	LPN	MA
1. A patient who is **established at your clinic** arrives as **part of an MD/APP office visit** and requests to receive the vaccine. MD/APP places order for same day administration (if vaccine clinic offered that day/dose available)	Y	Y	Y
2. A patient who is **established at your clinic** has a vaccine **future order** in the EMR signed by an MDAPP in that same practice	Y	Y	Y
3. A patient presents for vaccine only visit: **a) Without a vaccine order:** Order must be entered under the physician in the clinic that day **b) With a future order from another NM MD/APP:** based on clinic workflow, the RN can: i. Administer as ordered ***or*** ii. Change the order to the MD/APP in the clinic that day (RVU will be attributed to ordering MD/APP.)	Y	N	N

COVID-19 Screening Questions

If patient answers **YES**, how to proceed based on scope of practice

Consent Question	Role Variations	Guidance
1. Do you currently have a fever (>100.4 degrees F) or active infection?	All	If YES**,** do **NOT** vaccinate. Need to reschedule to another day because patient must be fever free for 24 hours without taking fever-reducing medications.
2. Have you ever had a severe (life-threatening) reaction to another vaccine, a component of the COVID-19 vaccine such as polyethylene glycol (PEG), or another injectable medication?	All	If YES, do **NOT** vaccinate. Consult MD/APP for assessment to determine if you can proceed.
3. Have you ever had a severe allergic reaction to something other than a vaccine, including food, pets, venom, environmental, oral medications, etc.?	RN, LPN	OK to vaccinate, but recipient must be monitored for 30 minutes in clinic.
	MA/ICTs	If YES, do **NOT** vaccinate. Consult with RN/APP/MD.

COVID-19 Screening Questions

If patient answers **YES**, how to proceed based on scope of practice

Consent Question	Role Variations	Guidance
4. In the last two weeks, have you tested positive for COVID-19, or are you currently being monitored for COVID-19?	All	If YES, do **NOT** vaccinate. Patient will need to reschedule once they are out of quarantine and not acutely ill.
5. In the last three months, have you received antibody therapy (monoclonal antibodies or convalescent serum) as a treatment for COVID-19?	All	If YES, do **NOT** vaccinate. Patient will need to reschedule to day 90 or since the last date of treatment.
6. Do you have a bleeding disorder or a blood clotting disorder, or are you taking a blood thinner?	All	If yes, OK to vaccinate. Patient may experience longer length of bleeding at injection site. Hold extra pressure at injection site until bleeding stops.

COVID-19 Screening Questions

If patient answers **YES**, how to proceed based on scope of practice

Consent Question	Role Variations	Guidance
7. After receiving your first COVID-19 vaccine, did you experience any of the following symptoms within the first four hours? Shortness of breath, wheezing or trouble breathing; persistent GI symptoms; fast heart rate or palpitations; prolonged episode of coughing, hives, itching or flushing, swollen lips, tongues or uvula; dizziness; chest pain; low blood pressure or passing out?	All	Do **NOT** vaccinate. Consult with MD/APP.
8. After receiving your first COVID-19 vaccine did you receive any medical treatment for adverse effects?	All	Do **NOT** vaccinate. Consult with MD/APP.
9. I have received and reviewed the Emergency Use Authorization (EUA) Information Sheet. I understand the risks and benefits of the COVID-19 vaccine, and I verbally consent to receive the vaccine.	All	Yes, OK to vaccinate.

Items Provided to the Patient

COVID-19 Vaccination Record Card

Please keep this record card, which includes medical information about the vaccines you have received.

Por favor, guarde esta tarjeta de registro, que incluye información médica sobre las vacunas ha recibido.

Palamone	Janet
Last Name	First Name
03/17/1960	100584
Date of birth	Patient number

Vaccine	Product Name/Manufacturer Lot Number	Date	Healthcare Professional or Clinic Site
1st Dose COVID-19	SARS-CoV-2 (COVID-19)/Pfizer EL0140	12 / 18 / 20 mm dd yy	Northwestern Memorial Hospital
2nd Dose COVID-19	SARS-CoV-2 (COVID-19)/Pfizer EK9231	01 / 08 / 21 mm dd yy	Northwestern Memorial Hospital
Other		mm dd yy	
Other		mm dd yy	

FACT SHEET FOR RECIPIENTS AND CAREGIVERS

EMERGENCY USE AUTHORIZATION (EUA) OF THE PFIZER-BIONTECH COVID-19 VACCINE TO PREVENT CORONAVIRUS DISEASE 2019 (COVID-19) IN INDIVIDUALS 12 YEARS OF AGE AND OLDER

You are being offered the Pfizer-BioNTech COVID-19 Vaccine to prevent Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2. This Fact Sheet contains information to help you understand the risks and benefits of the Pfizer-BioNTech COVID-19 Vaccine, which you may receive because there is currently a pandemic of COVID-19.

The Pfizer-BioNTech COVID-19 Vaccine is a vaccine and may prevent you from getting COVID-19. There is no U.S. Food and Drug Administration (FDA) approved vaccine to prevent COVID-19.

Read this Fact Sheet for information about the Pfizer-BioNTech COVID-19 Vaccine. Talk to the vaccination provider if you have questions. It is your choice to receive the Pfizer-BioNTech COVID-19 Vaccine.

Items Provided to the Patient

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COVID-19 Vaccine Reactions

For Vaccine Recipients and Caregivers

Below are reactions that are common after receiving a vaccine. You may experience some or all of these after your COVID-19 vaccination. Typically, reactions are mild and do not last longer than 72 hours.

- Redness, swelling or pain at the injection site
- Muscle and joint pain
- Fatigue
- Chills
- Headache

If any of the above symptoms last longer than 72 hours, please contact your healthcare provider

If you experience any of the following issues, please call 9-1-1, or go the nearest hospital:

- Difficulty breathing or shortness of breath
- Chest pain
- Loss of consciousness
- Trouble swallowing
- Swelling of your face or throat
- A fast heartbeat
- A bad rash all over your body or hives
- Dizziness or weakness

Even after you get vaccinated against COVID-19, you will need to continue to:

- Wear a mask that covers your nose and mouth
- Wash your hands often
- Stay at least 6 feet away from other people you do not live with you

Researchers and healthcare providers do not know how long COVID-19 vaccines will protect you, so please continue to follow CDC and health department guidelines and public health recommendation.
We also know that it will take time to vaccinate everyone who wants to participate, so please continue to take measures to protect yourself and others from the spread of COVID-19.

Because the COVID-19 vaccine was approved under an Emergency Use Authorization, the Food and Drug Administration (FDA) requires health conditions or adverse events following vaccination be reported, including if you sought medical attention or were hospitalized as a result of the COVID-19 vaccine.

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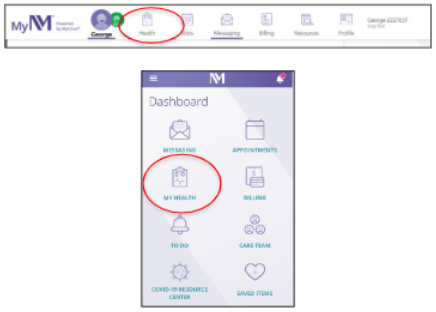
Finding Your Vaccine Information in MyNM

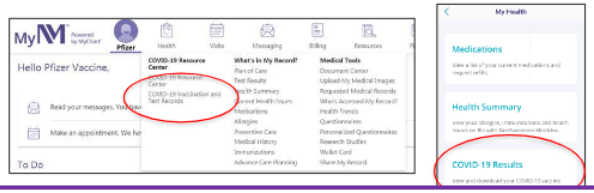
For Patients Who Have Received the COVID-19 Vaccine

This tip sheet shows you how to access your COVID-19 vaccine record. You will need a MyNM account to do so.

1. Log into your **MyNM** account at nm.org/mynm or log into the **MyNM® app.**
2. Hover over the **Health** clipboard icon on the desktop or click on **My Health** in the app.



3. Select **COVID-19 Vaccination Record and Testing** in the drop-down box on the MyNM desktop or click on **COVID-19 Results** in the MyNM app.



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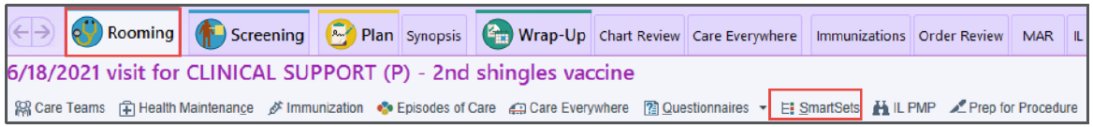
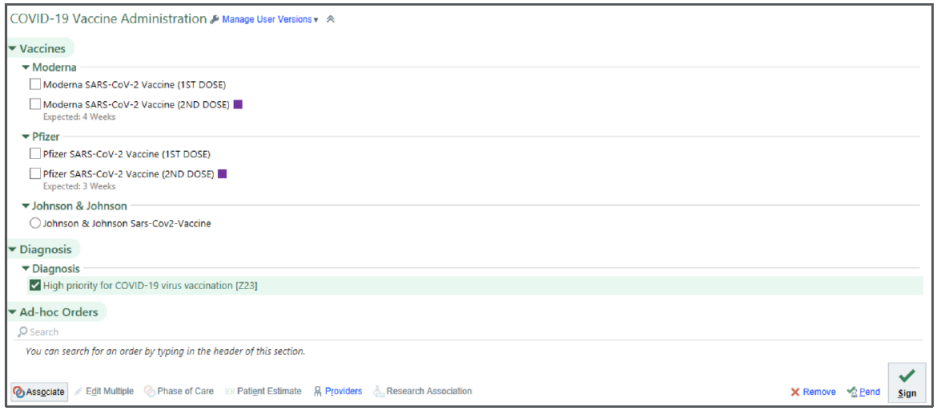
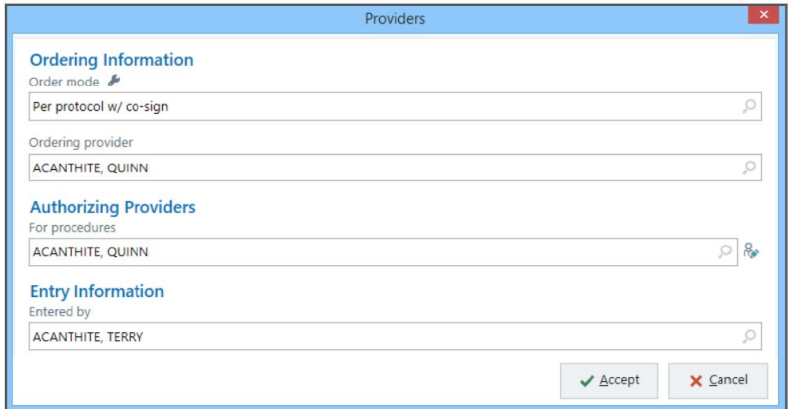
Ordering SmartSets and BPA for COVID-19 Vaccine

COVID-19 Vaccine Ordering Epic Tip Sheets







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Storage, Preparation and Administration

Storage of COVID-19 Vaccines

	Pfizer-BioNTech® 		Moderna® 		Johnson & Johnson-Janssen® 	
Storage PRIOR to thawing and vial puncture	**Until vial expires**	**At temp between** -80°C and -60°C (-112°F and -75°F)	**Until vial expires**	**At temp between** -50°C and -15°C (-58°F and 5°F)	**Until vial expires (4.5 months)**	**At temp between** 2°C and 8°C (36°F to 46°C)
	Up to 2 weeks	-25°C and -15°C (-13°F and 5°F)	**Up to 30 days**	2°C and 8°C (36°F and 46°F)		
	Up to 30 days	2°C and 8°C (36°F and 46°F)	**Up to 24 hours**	8°C and 25°C (46°F and 77°F)		
Storage AFTER thawed and/or vial puncture	**Up to 6 hours** *Discard after **6 hours***	**Store in refrigerator or room temperature** 2°C and 25°C (36°F and 77°F)	**Up to 12 hours** *Discard after **12 hours***	**Store in refrigerator or room temperature** 2°C and 25°C (36°F and 77°F)	**Up to 6 hours***	**Store in refrigerator** 2°C and 8°C (36°F to 46°F)
					Up to 2 hours* **Discard after these time frames*	**Store at room temperature** 9°C and 25°C (47°F to 77°F)

COVID-19 Vaccine: Quick Reference Guide for Healthcare Professionals (cdc.gov)

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Preparation of COVID-19 Vaccines

	Pfizer®		Moderna®		Janssen®
Thawing of frozen vaccine	1. **Thaw in refrigerator** 2°C and 8°C (36°F and 46°F)	A carton of 25-195 vials may take up to **2-3 hours** to thaw	**Thaw in refrigerator** 2°C and 8°C (36°F and 46°F)	11-dose vial: 2 hours to thaw 15-dose vial: 3 hours to thaw *Refrigerated vial needs be thawed at room temp for 15 minutes*	N/A
	2. **Thaw at room temp** 8°C and 25°C (46°F and 77°F)	**Thaw undiluted** vials for 30 minutes	**Thaw at room temp** 8°C and 25°C (46°F & 77°F)	11-dose vial: 1 hour 15-dose vial: 1 1/2 hour to thaw	
	• *Do NOT refreeze thawed vaccine.* • *Time to thaw will depend on temperature and number of vials.*				
Mixing of vaccine	Mix 1.8 mL of 0.9% sodium chloride with thawed vaccine *(provided in ancillary kit)*		N/A		N/A
Combining or pooling half doses	 **Never** combine or "pool" partial doses from two or more vials to obtain a full dose of vaccine				
Vial expiration date	*On vial/carton*		Follow QR code		
Disposal of unused portions	• Unused doses of the vaccine drawn up into a syringe can be disposed of in a red sharps container				

COVID-19 Vaccine: Quick Reference Guide for Healthcare Professionals (cdc.gov)

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Monitoring Temperatures

Preferred method:

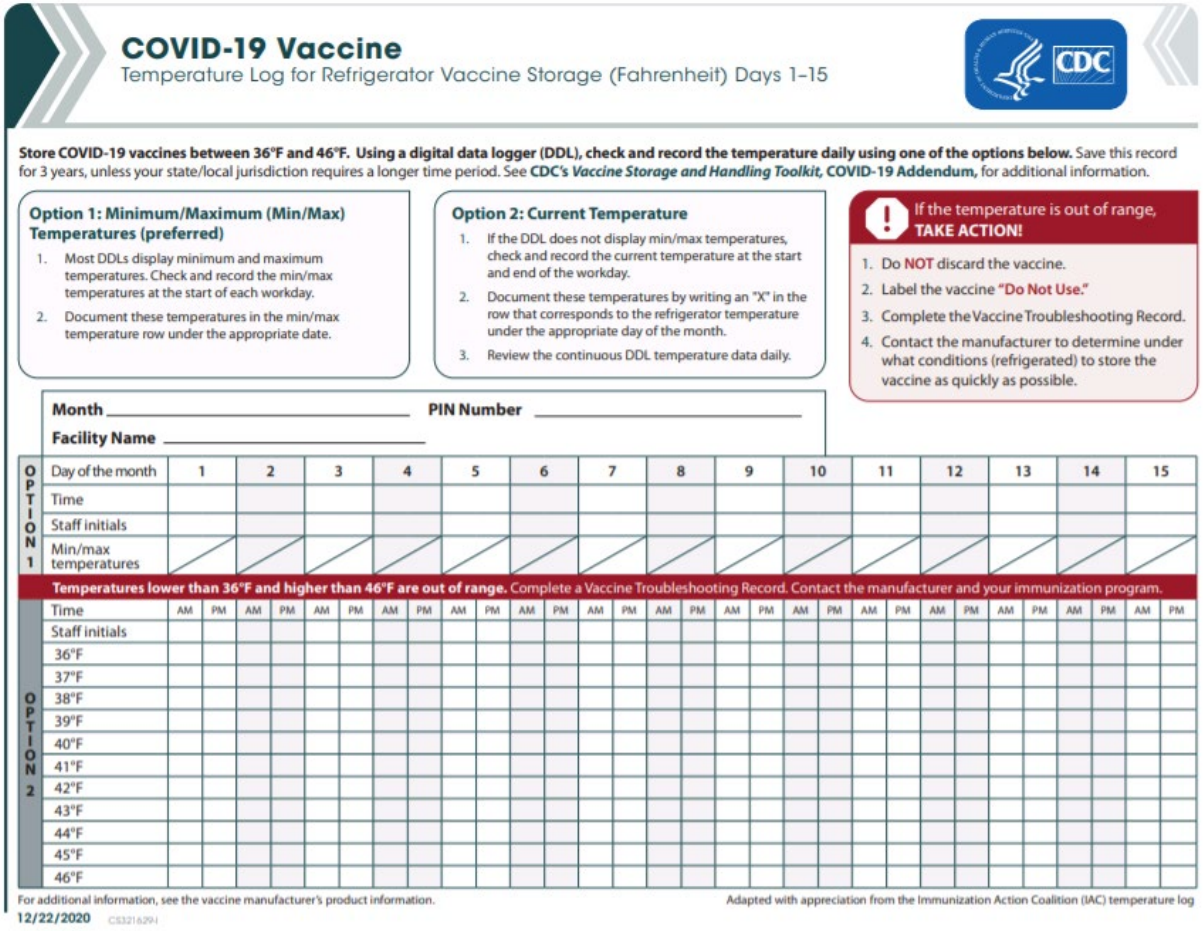
If using a digital data logger (DDL) with detachable probe:

Record minimum and maximum temperatures at start of each day.

Sites with refrigerators with CIMSCAN are monitored 24/7.

DDL does not display min/max temperatures:

Check and record the current temperature at the start and end of day.



COVID-19 Vaccine
Temperature Log for Refrigerator Vaccine Storage (Fahrenheit) Days 1–15

CDC

Store COVID-19 vaccines between 36°F and 46°F. Using a digital data logger (DDL), check and record the temperature daily using one of the options below. Save this record for 3 years, unless your state/local jurisdiction requires a longer time period. See **CDC's *Vaccine Storage and Handling Toolkit*, COVID-19 Addendum,** for additional information.

Option 1: Minimum/Maximum (Min/Max) Temperatures (preferred)

1. Most DDLs display minimum and maximum temperatures. Check and record the min/max temperatures at the start of each workday.
2. Document these temperatures in the min/max temperature row under the appropriate date.

Option 2: Current Temperature

1. If the DDL does not display min/max temperatures, check and record the current temperature at the start and end of the workday.
2. Document these temperatures by writing an "X" in the row that corresponds to the refrigerator temperature under the appropriate day of the month.
3. Review the continuous DDL temperature data daily.

If the temperature is out of range, TAKE ACTION!

1. Do **NOT** discard the vaccine.
2. Label the vaccine **"Do Not Use."**
3. Complete the Vaccine Troubleshooting Record.
4. Contact the manufacturer to determine under what conditions (refrigerated) to store the vaccine as quickly as possible.

Month _____ **PIN Number** _____

Facility Name _____

OPTION 1

Day of the month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time															
Staff initials															
Min/max temperatures															

Temperatures lower than 36°F and higher than 46°F are out of range. Complete a Vaccine Troubleshooting Record. Contact the manufacturer and your immunization program.

OPTION 2

Time	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Staff initials																														
36°F																														
37°F																														
38°F																														
39°F																														
40°F																														
41°F																														
42°F																														
43°F																														
44°F																														
45°F																														
46°F																														

For additional information, see the vaccine manufacturer's product information.

Adapted with appreciation from the Immunization Action Coalition (IAC) temperature log

12/22/2020 CS321629-I

[COVID-19 Vaccine Temperature Log]

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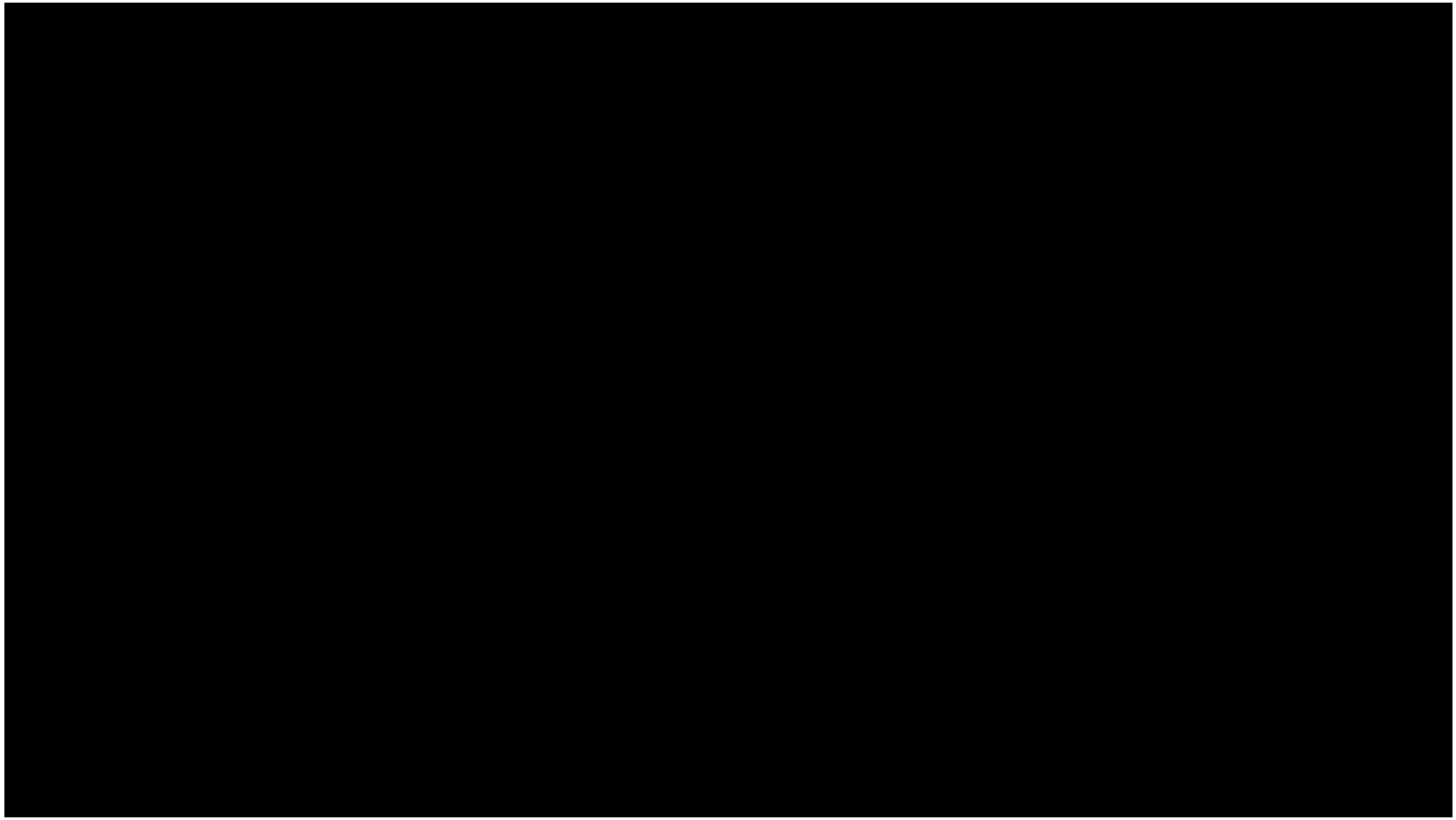
Pfizer-BioNTech Video

6 Minutes



Preprinted Labels

Pfizer COVID Vaccine 0.3ml IM Lot # NDC# 59267-1000-1 Date/time Expired: Initials __	Pfizer COVID Vaccine 0.3ml IM Lot # NDC# 59267-1000-1 Date/time Expired: Initials __	Pfizer COVID Vaccine 0.3ml IM Lot # NDC# 59267-1000-1 Date/time Expired: Initials __	Janssen COVID19 vaccine: 0.5ml IM Lot#: ____ Expiration: ____ Time drawn/Initials: ____	Janssen COVID19 vaccine: 0.5ml IM Lot#: ____ Expiration: ____ Time drawn/Initials: ____	Janssen COVID19 vaccine: 0.5ml IM Lot#: ____ Expiration: ____ Time drawn/Initials: ____
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Required Personal Protective Equipment

Prior to Administration

Mask

Eye Protection

Gloves

Preparing the Pfizer-BioNTech Vaccine

Remove vaccine from freezer/refrigerator.
Vaccine must be at room temperature before mixing.

Vials must be diluted within ***2 hours after reaching room temperature***.
After 2 hours, return unmixed vials to refrigerator.

Check the ***expiration dates*** of vaccine and diluent.

Gently invert vial 10 times. ***DO NOT SHAKE VIAL.***
Vaccine should be white to off-white in color and may contain opaque particles.

Using aseptic technique, ***withdraw 1.8 mL*** of diluent
(0.9% sodium chloride) into mixing syringe using a 21-gauge needle.

Inject 1.8 mL of diluent into vaccine vial.

Before removing needle, ***withdraw 1.8 mL of air*** from vaccine vial
into empty diluent syringe to equalize pressure in vial.

Gently invert vial with vaccine and diluent 10 times.
DO NOT SHAKE.

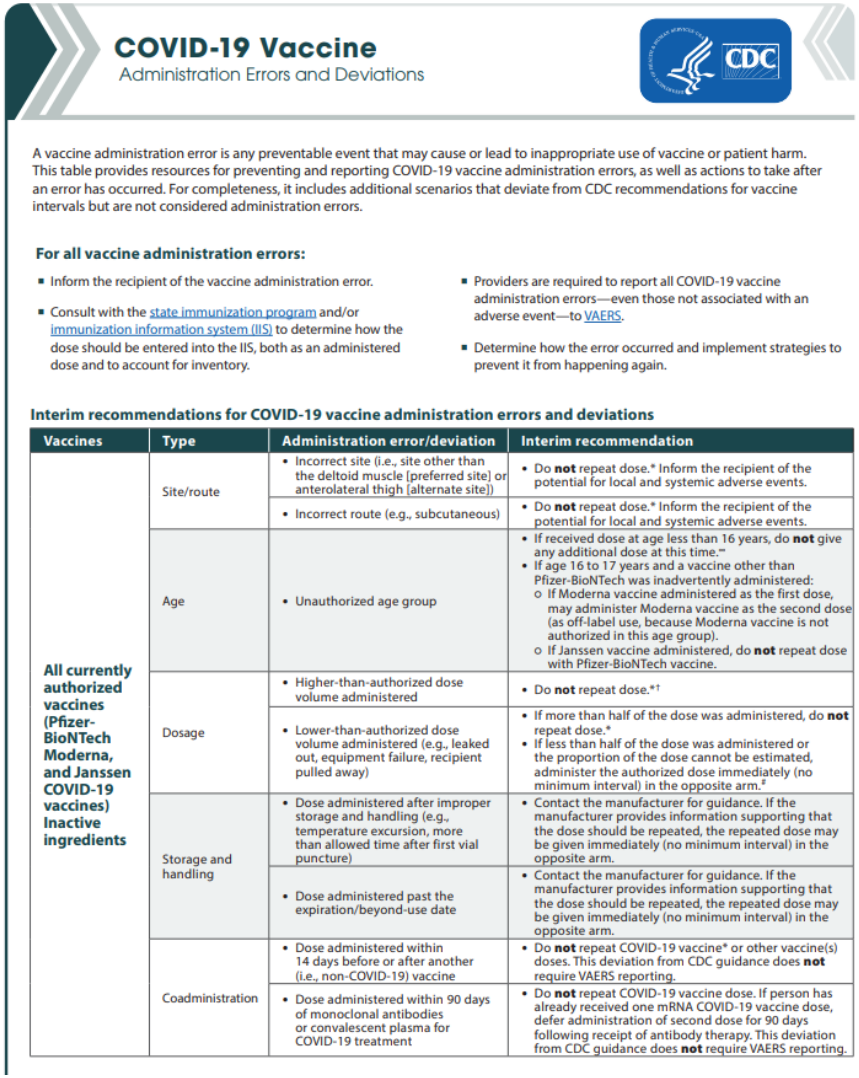
Record the ***date*** and ***time*** vaccine was mixed on the vial.

Keep mixed vaccine between 2°C and 25°C
Administer within 6 hours. Discard any unused vaccine after 6 hours.

Preparing and Administering the Johnson & Johnson-Janssen Vaccine

Gently swirl vial for 10 seconds in an upright position before first use and before removing each dose. ***DO NOT SHAKE.*** 
Check the expiration dates of vaccine.
Inspect contents of the vial. Vaccine should be a colorless to slightly yellow, clear to very opalescent suspension.
Record the date and time the vial was punctured. 
Keep vaccine at room temperature between 2°C and 25°C. ***Administer within 6 hours.*** Discard any unused vaccine after 6 hours.
Review consent and screening questions with patient prior to administration.
 Draw up 0.5 mL of vaccine using aseptic technique. Each vial contains five doses.
Administer vaccine intramuscularly.
Inform patient to wait for the appropriate length of observation.

What if COVID-19 Vaccine Error Occurs?



COVID-19 Vaccine
Administration Errors and Deviations

A vaccine administration error is any preventable event that may cause or lead to inappropriate use of vaccine or patient harm. This table provides resources for preventing and reporting COVID-19 vaccine administration errors, as well as actions to take after an error has occurred. For completeness, it includes additional scenarios that deviate from CDC recommendations for vaccine intervals but are not considered administration errors.

For all vaccine administration errors:

- Inform the recipient of the vaccine administration error.
- Consult with the state immunization program and/or immunization information system (IIS) to determine how the dose should be entered into the IIS, both as an administered dose and to account for inventory.
- Providers are required to report all COVID-19 vaccine administration errors—even those not associated with an adverse event—to VAERS.
- Determine how the error occurred and implement strategies to prevent it from happening again.

Interim recommendations for COVID-19 vaccine administration errors and deviations

Vaccines	Type	Administration error/deviation	Interim recommendation
All currently authorized vaccines (Pfizer-BioNTech Moderna, and Janssen COVID-19 vaccines) Inactive ingredients	Site/route	• Incorrect site (i.e., site other than the deltoid muscle [preferred site] or anterolateral thigh [alternate site])	• Do **not** repeat dose.* Inform the recipient of the potential for local and systemic adverse events.
		• Incorrect route (e.g., subcutaneous)	• Do **not** repeat dose.* Inform the recipient of the potential for local and systemic adverse events.
	Age	• Unauthorized age group	• If received dose at age less than 16 years, do **not** give any additional dose at this time.** • If age 16 to 17 years and a vaccine other than Pfizer-BioNTech was inadvertently administered: ○ If Moderna vaccine administered as the first dose, may administer Moderna vaccine as the second dose (as off-label use, because Moderna vaccine is not authorized in this age group). ○ If Janssen vaccine administered, do **not** repeat dose with Pfizer-BioNTech vaccine.
	Dosage	• Higher-than-authorized dose volume administered	• Do **not** repeat dose.*†
		• Lower-than-authorized dose volume administered (e.g., leaked out, equipment failure, recipient pulled away)	• If more than half of the dose was administered, do **not** repeat dose.* • If less than half of the dose was administered or the proportion of the dose cannot be estimated, administer the authorized dose immediately (no minimum interval) in the opposite arm.§
	Storage and handling	• Dose administered after improper storage and handling (e.g., temperature excursion, more than allowed time after first vial puncture)	• Contact the manufacturer for guidance. If the manufacturer provides information supporting that the dose should be repeated, the repeated dose may be given immediately (no minimum interval) in the opposite arm.
		• Dose administered past the expiration/beyond-use date	• Contact the manufacturer for guidance. If the manufacturer provides information supporting that the dose should be repeated, the repeated dose may be given immediately (no minimum interval) in the opposite arm.
	Coadministration	• Dose administered within 14 days before or after another (i.e., non-COVID-19) vaccine	• Do **not** repeat COVID-19 vaccine* or other vaccine(s) doses. This deviation from CDC guidance does **not** require VAERS reporting.
		• Dose administered within 90 days of monoclonal antibodies or convalescent plasma for COVID-19 treatment	• Do **not** repeat COVID-19 vaccine dose. If person has already received one mRNA COVID-19 vaccine dose, defer administration of second dose for 90 days following receipt of antibody therapy. This deviation from CDC guidance does **not** require VAERS reporting.

Refer to CDC vaccine resource

COVID-19 Vaccine Administration Errors and Deviations (cdc.gov)

Additional Vaccine Resources

Pfizer-BioNTech and Johnson & Johnson-Janssen

1. Pfizer:
   a. Pfizer company preparation instructions: Pfizer-BioNTech COVID-19 Vaccine Preparation and 6th Dose Guidance (cdc.gov)
   b. EUA: Pfizer-BioNTech COVID-19 Vaccine EUA Fact Sheet for Recipients and Caregivers (fda.gov)
   c. Adverse Reactions for Recipients and Caregivers , Pfizer: https://nmhealth.sharepoint.com/sites/nm-coronavirus/SiteAssets/Forms/AllItems.aspx?id=%2Fsites%2Fnm-coronavirus%2FSiteAssets%2FSiteDocuments%2FVaccine%26 Treatment Resources%2FVaccine%2FAdverse Reactions for Recipients %26 Caregivers_Pfizer%2Epdf&parent=%2Fsites%2Fnm-coronavirus%2FSiteAssets%2FSiteDocuments%2FVaccine%26 Treatment Resources%2FVaccine
2. Janssen (J&J):
   a. Company preparation instructions: Janssen COVID-19 Vaccine (Johnson & Johnson): Vaccine Preparation and Administration Summary (cdc.gov)
   b. EUA: Janssen COVID-19 Vaccine EUA Fact Sheet for Recipients and Caregivers 04232021 (fda.gov)
   c. Adverse Reactions for Recipients and Caregivers, J&J: https://nmhealth.sharepoint.com/:b:/r/sites/nm-coronavirus/SiteAssets/SiteDocuments/Vaccine%20%26%20Treatment%20Resources/Vaccine/Adverse%20Reactions%20for%20Recipients%20%26%20Caregivers%20J%26J.pdf?csf=1&web=1&e=DRPSMu
3. V-safe cdc.gov: Get vaccinated. Get your smartphone. Get started with v-safe. (cdc.gov)
4. How do vaccines work? (WHO) https://www.who.int/news-room/feature-stories/detail/how-do-vaccines-work
5. COVID-19 Quick Reference Guide: COVID-19 Vaccine: Quick Reference Guide for Healthcare Professionals (cdc.gov)
6. Vaccine Administration: Intramuscular (IM) Injection: Vaccine Administration: Intramuscular (IM) injections: Adults 19 years of age and older (cdc.gov)
7. What if COVID vaccine error occurs? COVID-19 Vaccine Administration Errors and Deviations (cdc.gov)
8. EpiPen Drug Information Sheet: label (fda.gov)
9. Refer to *Medical Management of Adult Patients in the Community Setting:* Medical Management of Vaccine Reactions in Adults in a Community Setting (immunize.org)
10. Patient MyNM Tip Sheet for Finding Vaccine Record: https://nmhealth.sharepoint.com/:b:/r/sites/nm-coronavirus/SiteAssets/SiteDocuments/Vaccine%20%26%20Treatment%20Resources/Vaccine/MyNM%20Tip%20Sheet%20Finding%20Vaccine%20Record%20Updated%205%2024%2021.pdf?csf=1&web=1&e=wyea9E

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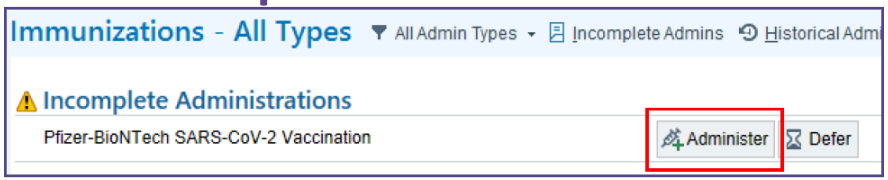
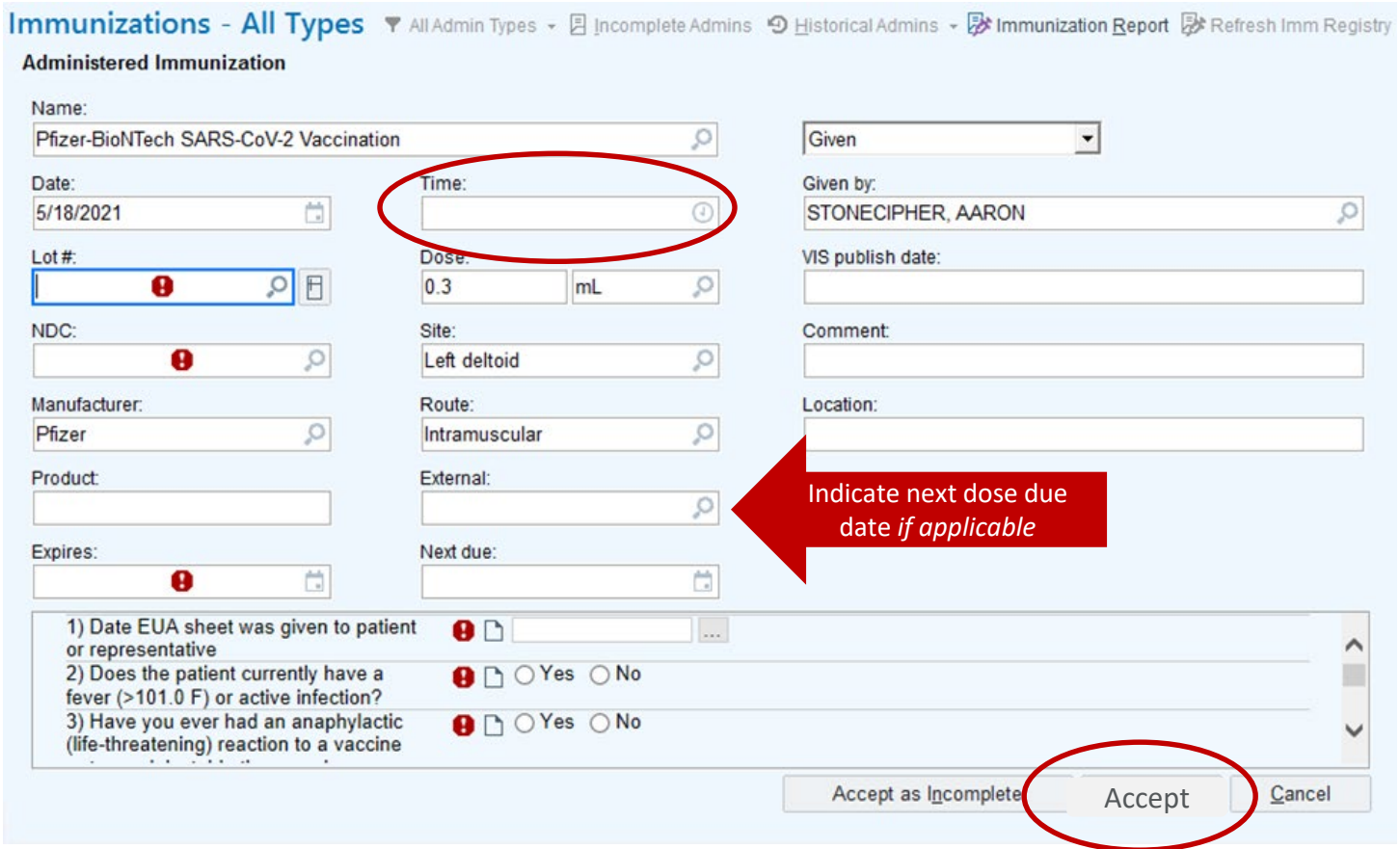
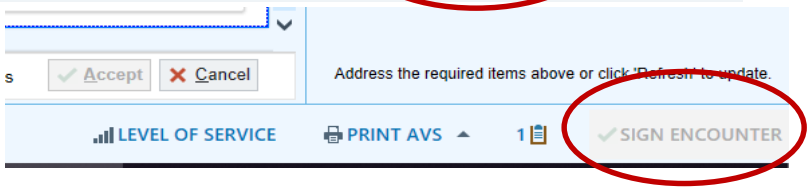
Documentation

Documentation in Epic







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Responding to Vaccine Reaction Emergencies

Preparing for Potential Anaphylaxis

cdc.gov

Observation Period

- **30 minutes** if recipient answered **YES** to allergic reaction or history of anaphylaxis (any cause)
- **15 minutes** for all other recipients

Early Recognition

- Reactions often occur within **15-30** minutes
- Delayed reactions can occur up to **4 hours**
- **For MA/ICT: Alert a MD/APP/RN if your patient begins to show signs of an vaccine reaction.*

Action Steps

- Call Emergency Response (**5.5555 or 911**)
- Frequent monitoring of vital signs and assessment
- Use emergency supply/equipment
- Complete VAERS report and NETS

Potential Adverse Reactions

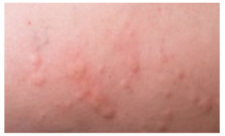
Characteristics	Immediate (<4 hours) Allergic Reactions (Including Anaphylaxis)	Vasovagal Reactions	Common Local and Systemic Side Effects
Timing	Occur within 15-30 minutes of vaccination	Most occur within 15 minutes of vaccination	Median of 1-3 days after vaccination
Signs and Symptoms			
Skin	Pruritus, urticaria, flushing, angioedema	Pallor, diaphoresis, clammy skin, sensation of facial warmth	Pain, erythema or swelling at injection site, lymphadenopathy in same arm as vaccine
Neuro	Confusion, disorientation, lightheaded, weakness, loss of consciousness	Dizzy, lightheadedness, syncope, weakness, changes in vision/hearing	Headache
Respiratory	Shortness of breath, wheezing, bronchospasm, stridor, hypoxia	Variable accompanied by anxiety and increased respiratory rate	N/A
Cardiovascular	Hypotension, tachycardia	Variable, may have hypotension or bradycardia during syncopal event	N/A
GI	Nausea, vomiting, abdominal cramps, diarrhea	Nausea, vomiting	Vomiting or diarrhea may occur
Musculoskeletal	NA	NA	Myalgia, arthralgia
Recommendations to receive 2nd dose	NO (discuss with PCP)	Yes	Yes

Anaphylaxis

Anaphylaxis is a **SERIOUS** life-threatening allergic reaction requiring immediate medical attention. The reaction may happen immediately or over several hours.

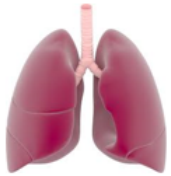
Skin (80-90%)

- Hives, welts
- Swelling
  - Lip, tongue, throat, face, etc.
- Pruritus (itching)
- Flushing
- Eczema flare



Respiratory (60%)

- Itchy, watery eyes
- Runny nose
- Stuffy nose
- Sneezing
- Coughing
- Difficulty swallowing
- Chest tightness
- Wheezing, Shortness of breath
- Throat Closing



Gastrointestinal (30%)

- Cramps
- Nausea
- Vomiting
- Diarrhea

Cardiovascular (30%)

- Tachycardia
- Hypotension
- Cardiac arrest
- Dizziness, Fainting

Lieberman Ann Allergy Asthma Immunol 2006 & Anju Peters, MD

Anaphylaxis Equipment and Supplies

cdc.gov

Should Be Available at All Sites	Recommended if Available
Epinephrine (prefilled syringe or autoinjector [EpiPen®])	Pulse oximeter
H1 antihistamine (diphenhydramine [Benadryl®])	Oxygen
Blood pressure monitor	Bronchodilator(e.g., albuterol)
Timing device to assess pulse rate	H2 antihistamine (famotidine, cimetidine)
Adult-sized pocket mask with one-way valve (e.g., a CPR mask)	

EpiPen®

Licensed Clinicians to Administer

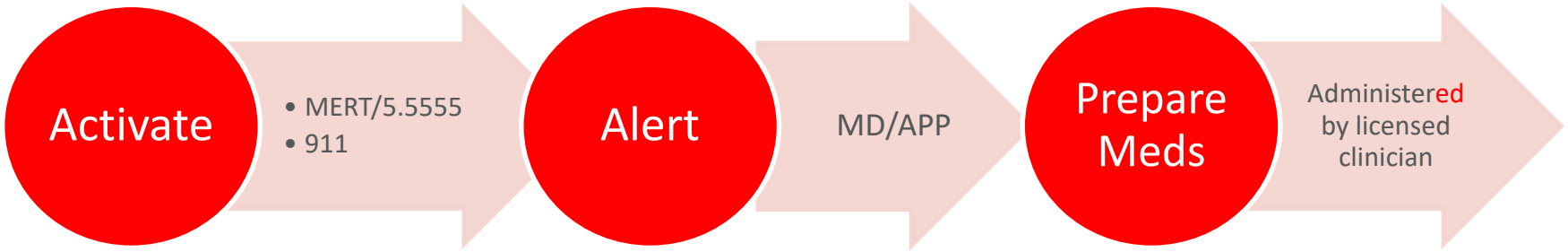
Follow Instructions on the Pen

EpiPen®

Hold against thigh for 10 seconds

If time permits, remove clothing and cleanse skin with alcohol prior to injection.

Emergency Medication Management



Epinephrine (EpiPen®)

Adult

0.3 mg IM dose using auto-injector in the mid-outer thigh

Pediatric (33 – 66 lb)

0.15 mg IM dose using auto-injector in the mid-outer thigh

May repeat every 5-15 minutes as needed to control symptoms, up to a **max of three times total**

Diphenhydramine (Benadryl®)

Adult

25 mg tablet or liquid

Pediatric

12.5 mg/5 mL liquid

Does NOT relieve upper or lower airway obstruction, hypotension or shock

Potential Immediate Vaccine Reactions: Non-Life Threatening

Common Reactions	Treatment
Localized site reactions	Apply pressure, ice packs Observe for 30 minutes Consider Benadryl prn
Lightheadedness	Keep seated, provide juice or Gatorade and crackers Monitor vital signs
Syncopal episode (fainting)	Supine position, elevate legs (if not contraindicated) Monitor vital signs

**For MA/ICT*: Alert a MD/APP/RN if your patient begins to show signs of an immediate vaccine reaction.*

Refer to: Medical Management of Vaccine Reactions in Adults in a Community Setting (immunize.org).

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COVID-19 Vaccine Record Keeping and Tracking

Inventory Tracking Log: Pfizer-BioNTech

Pfizer-BioNTech COVID-19 Vaccine Accountability, Utilization, and Waste Record

251 E Huron LC-700 Chicago, IL 60611

PAGE ____ OF ____

Clinical Research Site Name **Northwestern Medicine**	Protocol Number **Pfizer-BioNTech COVID-19 Vaccine Emergency Use Authorization (EUA)**	
Drug Name **Pfizer-BioNTech COVID-19 Vaccine**	Dose Form and Strength **Undiluted Suspension – MDV (0.3 mL per dose)**	
Protocol Title: Pfizer-BioNTech COVID-19 Vaccine Emergency Use Authorization (EUA)	Dispensing Area	
Investigator **Multiple**	Storage Temperature **2 to 8 °C**	Manufacturer **Pfizer-BioNTech**

									End of Day Totals			
	Date	Vials Received	Date/Time of Vial Expiration	Vial Lot Number	Number of Vials Punctured	Number of Doses Administered	Doses Wasted (in mL)	Reason for Waste (i.e. expired dose, dropped dose, etc.)	**Total Vials Utilized Today**	**Total Doses Administered Today**	**Vial Balance**	**Staff Initials**
1	Date	Number of vials received in inventory	Once vial is puncture OR if inventory is received	LOT number of vials received or punctured	# of vials punctured or utilized, specific to LOT#	Doses administered from each vial, specific to LOT#	If any unused, expired, or wasted doses	Documentation of waste. Please be specific on reason for waste	End of day, total amount of vials utilized (add up all vials for day)	Total amount of doses given in one day (sum of all vials/LOT#s)	Vials remaining in inventory at the end of the day	Initials of staff
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16												

Vial log (no bottle numbers)

Revised date: May 1, 2015

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Inventory Tracking Log: Johnson & Johnson-Janssen

Janssen COVID-19 Vaccine Accountability, Utilization, and Waste Record

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PAGE ____ OF ____

Clinical Research Site Name **Northwestern Medicine**	Protocol Number **Janssen COVID-19 Vaccine Emergency Use Authorization (EUA)**	
Drug Name **Janssen COVID-19 Vaccine**	Dose Form and Strength **Suspension – MDV (0.5 mL per dose)**	
Protocol Title: Janssen COVID-19 Vaccine Emergency Use Authorization (EUA)	Dispensing Area	
Investigator **Multiple**	Storage Temperature **2 to 8 °C**	Manufacturer **Janssen**

									End of Day Totals			
	Date	Vials Received	Date/Time of Vial Expiration	Vial Lot Number	Number of Vials Punctured	Number of Doses Administered	Doses Wasted (in mL)	Reason for Waste (i.e. expired dose, dropped dose, etc.)	**Total Vials Utilized Today**	**Total Doses Administered Today**	**Vial Balance**	**Staff Initials**
1	Date	Number of vials received in inventory	Once vial is puncture OR if inventory is received	LOT number of vials received or punctured	# of vials punctured or utilized, specific to LOT#	Doses administered from each vial, specific to LOT#	If any unused, expired, or wasted doses	Documentation of waste. Please be specific on reason for waste	End of day, total amount of vials utilized (add up all vials for day)	Total amount of doses given in one day (sum of all vials/LOT#s)	Vials remaining in inventory at the end of the day	Initials of staff
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Vial log (no bottle numbers)

Revised date: May 1, 2015

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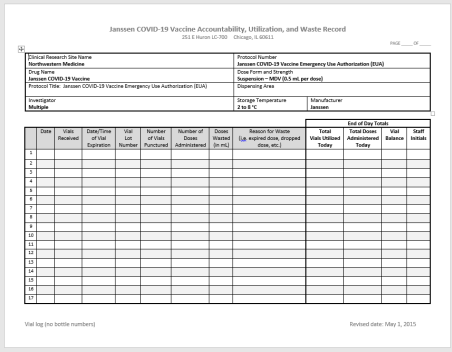
Inventory End-of-Day Reporting

Form to Submit

1. Keep paper log of inventory throughout the day during vaccination clinics:



Janssen COVID-19 Vaccine Accountability, Utilization, and Waste Record

251 E Huron LC-700 Chicago, IL 60611

PAGE ____ OF ____

Clinical Research Site Name **Northwestern Medicine**	Protocol Number **Janssen COVID-19 Vaccine Emergency Use Authorization (EUA)**
Drug Name **Janssen COVID-19 Vaccine**	Dose Form and Strength **Suspension – MDV (0.5 mL per dose)**
Protocol Title: Janssen COVID-19 Vaccine Emergency Use Authorization (EUA)	Dispensing Area
Investigator **Multiple**	Storage Temperature **2 to 8 °C** / Manufacturer **Janssen**

	Date	Vials Received	Date/Time of Vial Expiration	Vial Lot Number	Number of Vials Punctured	Number of Doses Administered	Doses Wasted (in mL)	Reason for Waste (i.e. expired dose, dropped dose, etc.)	End of Day Totals: Total Vials Utilized Today	End of Day Totals: Total Doses Administered Today	End of Day Totals: Vial Balance	End of Day Totals: Staff Initials
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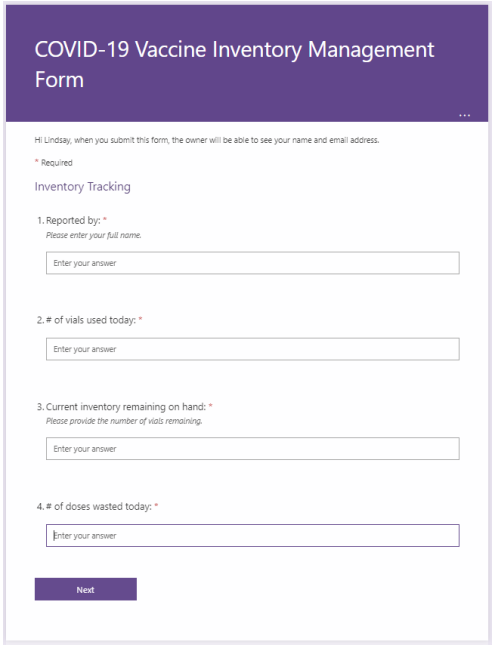
Vial log (no bottle numbers) Revised date: May 1, 2015

2. At end of a vaccination day, access the form to report end-of-day inventory and waste:



COVID-19 Vaccine Inventory Management Form

Hi Lindsay, when you submit this form, the owner will be able to see your name and email address.

* Required

Inventory Tracking

1. Reported by: *
Please enter your full name.
Enter your answer

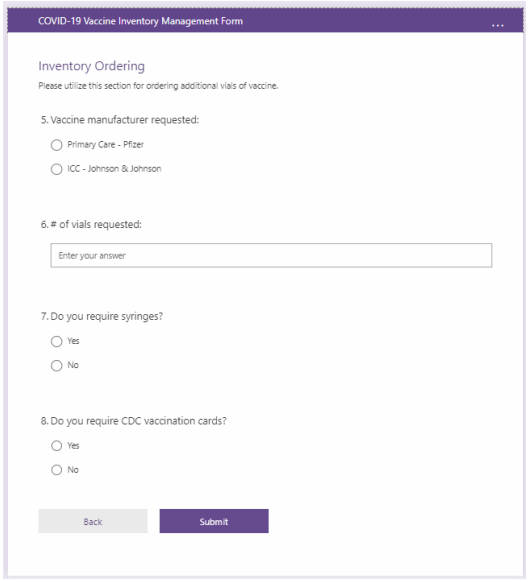
2. # of vials used today: *
Enter your answer

3. Current inventory remaining on hand: *
Please provide the number of vials remaining.
Enter your answer

4. # of doses wasted today: *
Enter your answer

Next

3. When additional inventory is needed for upcoming days, please submit request at least two business days in advance:



COVID-19 Vaccine Inventory Management Form

Inventory Ordering

Please utilize this section for ordering additional vials of vaccine.

5. Vaccine manufacturer requested:
- Primary Care - Pfizer
- ICC - Johnson & Johnson

6. # of vials requested:
Enter your answer

7. Do you require syringes?
- Yes
- No

8. Do you require CDC vaccination cards?
- Yes
- No

Back Submit

Form to Report Inventory and Order Additional - HERE

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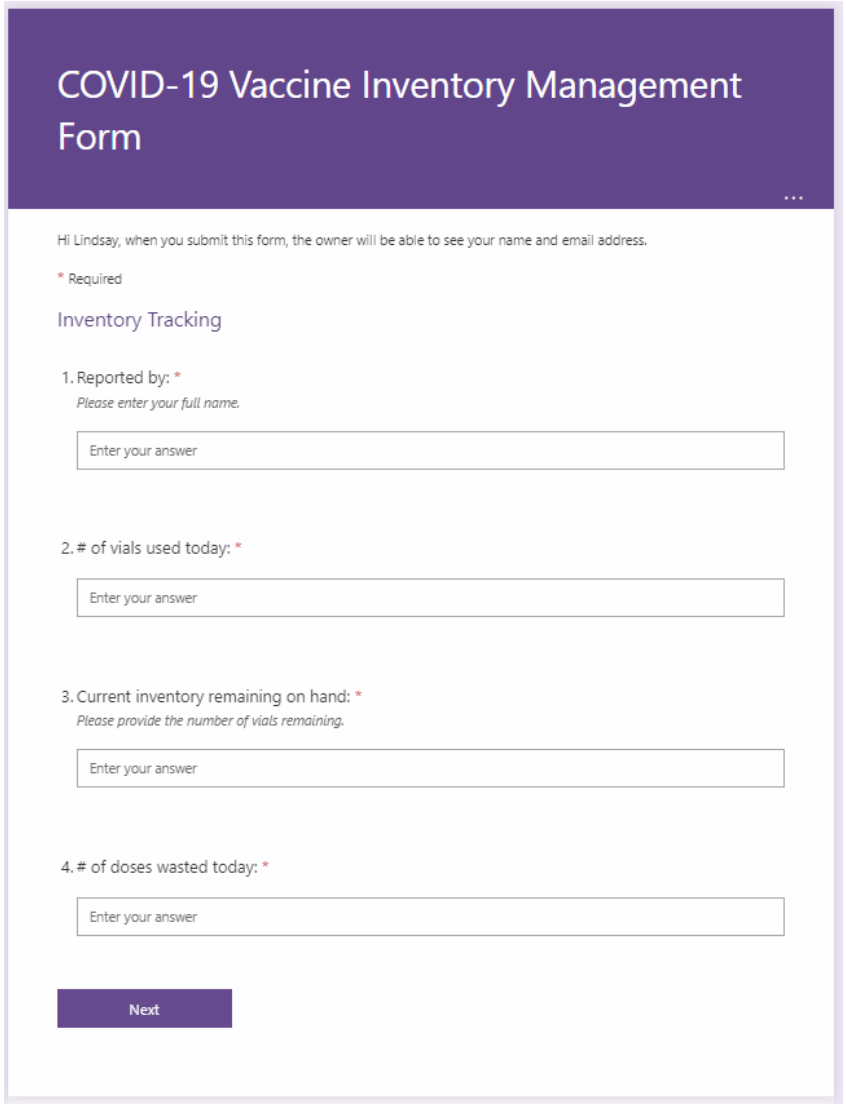
COVID-19 Vaccine Daily Inventory Reporting

Form to Report Inventory and Order Additional - HERE



COVID-19 Vaccine Inventory Management Form

...

Hi Lindsay, when you submit this form, the owner will be able to see your name and email address.

* Required

Inventory Tracking

1. Reported by: *

Please enter your full name.

Enter your answer

2. # of vials used today: *

Enter your answer

3. Current inventory remaining on hand: *

Please provide the number of vials remaining.

Enter your answer

4. # of doses wasted today: *

Enter your answer

Next

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Appendix 1

Special Populations

Special Populations and COVID-19 Vaccines

Pregnancy

Vaccines are unlikely to pose a risk to pregnant people or fetus, nor cause a COVID-19 infection in either mother or fetus.

Pregnant people who received the COVID-19 vaccine had no evidence the vaccine had a negative effect on the placenta (caused damage). Vaccinated pregnant people make COVID-19 antibodies and therefore pass those antibodies along to their fetuses and or babies.

Lactation

There is no data on the safety of vaccines in lactating people or the effects on infant, milk production or excretion. Vaccine will not cause infection in mother or infant.

Guillain-Barre Syndrome (GBS)

People with history of GBS may receive any FDA-authorized COVID-19 vaccine. A history of GBS is not a contraindication or precaution.

Bell's Palsy

People with history of Bell's Palsy may receive any FDA-authorized COVID-19 vaccine.

Special Populations and the Janssen Vaccine

Women age <50 years

Rare risk of thrombocytopenia

History of thrombosis

Persons with history of heparin-induced thrombocytopenia (HIT) or thrombosis should be offered Pfizer or Moderna if <90 days since illness

Use of aspirin

Not recommended to take aspirin or anticoagulant before vaccine, unless part of routine medications.

Pregnancy

Pregnant, lactating and postpartum people aged <50 years should be aware of the rare risk of TTS after receipt of the Janssen COVID-19 vaccine.

TTS = Thrombosis with thrombocytopenia syndrome

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Appendix 2

Frequently Asked Questions

Vaccine FAQs

How long does immunity last?
At this point, until there is more data from the current vaccination series, it is not known how long.

Will I need to get additional vaccines doses in the future?
At this point, it is not known if we will need additional doses in the future.

Can I give COVID-19 to someone else because of this vaccine?
No, this vaccine is not a live vaccine that can transmit COVID.

What do I do if I have a reaction ?
If you have a delayed reaction, refer to the EUA and consider downloading the v-safe monitoring program.
~~https://www.~~cdc.gov/coronavirus/2019-ncov/vaccines/safety/vsafe.html

Should I get the vaccine if I have had a COVID-19 infection in the last 90 days?
Evidence suggests that your body will have a natural immunity in the short term, and the likelihood of reinfection is very low. You may defer vaccination for 90 days post infection, or you may choose to get vaccinated. In order to make your vaccine appointment, you must be cleared from the isolation period. Also note that if your COVID-19 diagnosis is recent, you may experience more intense side effects.

Can I vaccinate a child under 18 without a parent/guardian present?
A child under 18 can receive vaccines without parent present as long as there is documented phone or written consent by parent or guardian, or they have been legally emancipated.

1. Adolescent must wait in the room for minimum 20 minutes before driving.
2. A child who had a reaction to any vaccine in the past will not be able to receive a vaccine without a parent present.

Can I vaccinate patients who are unable to give consent?
The patient's legal guardian/representative can consent to the medical care on behalf of the patient. This is also documented within the comment section of the vaccine screening questions.

Vaccine FAQs

What is the definition of "fully vaccinated?"

People are considered fully vaccinated:

- Two weeks after their second dose in a two-dose series, such as the Pfizer-BioNTech or Moderna vaccines
- Two weeks after a single-dose vaccine, like the Johnson & Johnson-Janssen vaccine

If it has been less than two weeks since your final or only shot (see the criteria above), you are NOT fully protected.

What does EUA mean?

EUA stands for Emergency Use Authorization. The FDA will make medications available under this mechanism when circumstances exist that justify the emergency use of drugs and biological products as long as certain criteria are met, such as there is no adequate, approved alternatives, and the drug must show scientific evidence that it is effective.

Should I take Tylenol or ibuprofen now?

Antipyretic or analgesic medication may be taken for the treatment of post-vaccination symptoms. Routine prophylaxis before vaccination is not recommended at this time, because of a lack of information on the impact of its use on vaccine-induced antibody response.

Should I take Benadryl to avoid a reaction ?

There is no current guidance from CDC for taking antihistamines to avoid an allergic reaction. Please discuss this with your provider, who knows your ~~current~~ medical history. If you take any medication that may make you drowsy, or may pose a safety-sensitive concern, please know that you should remove yourself from safety-sensitive duties while taking.

Should I get my blood tested for COVID-19 antibodies now that I have been vaccinated?

No, the CDC does not recommend getting your blood tested for COVID-19 antibodies after vaccination.

What if I have an underlying medical condition?

Talk with your own physician to make an informed decision. The CDC states that adults of any age with certain underlying medical conditions are at increased risk for severe illness from the COVID-19 virus.

Vaccine FAQs

Why should I think about getting vaccinated?

Stopping a pandemic requires using all the tools available. Vaccines work with your immune system so your body will be ready to fight the virus if you are exposed. Other steps, like covering your mouth and nose with a mask and staying at least 6 feet away from others, help reduce your chance of being exposed to the virus or spreading it to others. Together, COVID-19 vaccination and following CDC's recommendations to protect yourself and others will offer the best protection from COVID-19.

What ways can the vaccine help?

The vaccine can help ~~protect you~~ by producing an antibody response to protect you from becoming ill with COVID-19. This will decrease the chance of your having serious and long-term side effects if you contract COVID-19. It also helps you from spreading COVID-19 to other people~~, and decreases the severity of your illness if you contract the disease~~.

What is mRNA?

mRNA does not use a live virus. Instead mRNA teaches our cells how to make a protein that triggers an immune response. The immune response, which produces antibodies, is what protects against infection if you are exposed to COVID-19.

What medications and vaccines contain PEG or polysorbates?

See the next slides.

Medications Containing Polyethylene Glycol

Methyprednisolone (Depo-Medrol

Micera

Neulasta

Depo-Provera

Tissue Blue opth solution

Lumason

Durysta

Trastuzumab (Herceptin)

Rilonacept (Arcalyst)

Perflutren lipid (Definity)

Vaccines Containing Polysorbate

Drug class	Generic Name (**Brand Name**)	Polysorbate
Antiarrhythmic	Amiodarone hydrochloride (generics only)	Polysorbate 80
Antidiabetic	Exenatide (**Bydureon Bcise**)	Polysorbate 20
	Insuline glargine (**Lantus, Semglee**)	Polysorbate 20
	Insuline glulisine (**Apidra**)	Polysorbate 20
	Dulaglutide (**Trulicity**)	Polysorbate 80
Antidote	Hyaluronidase (**Hylenex Recombinant**)	Polysorbate 80
Antifungal	Anidulafungin (**Eraxis**)	Polysorbate 80
Anti-inflammatory	Interferon beta 1a (**Avonex, Plegridy**)	Polysorbate 20
	Omalizumab (**Xolair**)	Polysorbate 20
Antineoplastic	Ofatumumab (**Kesimpta**)	Polysorbate 80
	Siltuximab (**Sylvant**)	Polysorbate 80
Antipsychotic	Paliperidone palmitate (**Invega Trinza, Invega Sustenna**)	Polysorbate 20
	Aripiprazole lauroxil (**Aristada**)	Polysorbate 20
Antiretroviral	Ibalizumab (**Trogarzo**)	Polysorbate 80
Antipsoriatic	Adalimumab (**Humira, Imraldi**)	Polysorbate 20 (Imraldi) / Polysorbate 80 (Humira)
	Golimumab (**Simponi**)	Polysorbate 80
	Guselkumab (**Tremfya**)	Polysorbate 80
	Infliximab - dyyb (**Inflectra, Remicade, Renflexis**)	Polysorbate 80
	Ustekinumab (**Stelara**)	Polysorbate 80
Antiviral	Interferon alfa-2b (**Intron A**)	Polysorbate 80
Biological response modifier	Interferon gamma-1b (**Actimmune**)	Polysorbate 20
Cancer treatment	Ado-trastuzumab emtansine (**Kadcyla**)	Polysorbate 20
	Atezolizumab (**Tecentriq**)	Polysorbate 20
	Avelumab (**Bavencio**)	Polysorbate 20
	Bevacizumab (**Avastin, Zirabev**)	Polysorbate 20
	Daratumumab/hyaluronidase (**Darzalex Faspro**)	Polysorbate 20
	Denosumab (**Prolia, Xgeva**)	Polysorbate 20
	Dinutuximab (**Unituxin**)	Polysorbate 20
	Enfortumab (**Padcev**)	Polysorbate 20
	Olaratumab (**Lartruvo**)	Polysorbate 20
	Palifermin (**Kepivance**)	Polysorbate 20
	Pertuzumab/trastuzumab/hyaluronidase (**Phesgo**)	Polysorbate 20
	Polatuzumab vedotin (**Polivy**)	Polysorbate 20
	Tafasitamab (**Monjuvi**)	Polysorbate 20
	Trastuzumab (**Herceptin, Herceptin Hylecta, Herzuma, Kanjinti, Ontruzant, Trazimera**)	Polysorbate 20
	Belantamab (**Blenrep**)	Polysorbate 80
	Brentuximab vedotin (**Adcetris**)	Polysorbate 80
	Cemiplimab (**Libtayo**)	Polysorbate 80
	Docetaxel (**Taxotere**)	Polysorbate 80
	Durvalumab (**Imfinzi**)	Polysorbate 80
	Elotuzumab (**Empliciti**)	Polysorbate 80
	Etoposide (**Toposar, VePesid**)	Polysorbate 80
	Fam-trastuzumab deruxtecan (**Enhertu**)	Polysorbate 80
	Fosaprepitant dimeglumine (**EMEND, Fosaprepitant**)	Polysorbate 80
	Inotuzumab ozogamicin (**Besponsa**)	Polysorbate 80
	Ipilimumab (**Yervoy**)	Polysorbate 80
	Isatuximab (**Sarclisa**)	Polysorbate 80
	Mogamulizumab (**Poteligeo**)	Polysorbate 80
	Moxetumomab pasudotox (**Lumoxiti**)	Polysorbate 80
	Nivolumab (**Opdivo**)	Polysorbate 80
	Ofatumumab (**Arzerra**)	Polysorbate 80
	Pembrolizumab (**Keytruda**)	Polysorbate 80
	Ramucirumab (**Cyramza**)	Polysorbate 80
	Rituximab (**Truxima, Rituxan, Ruxience**)	Polysorbate 80

Medications Containing Polysorbate

Hepatitis B Immune Globulin (**HepaGam B, Nabi-HB**)	Polysorbate 80
Rho (d) Immune globulin (**WinRho**)	Polysorbate 80
Interferon beta-1a (**Avonex, Avonex Pen**)	Polysorbate 20
Emapalumab (**Gamifant**)	Polysorbate 80
Mycophenolate mofetil (**Cellcept IV**)	Polysorbate 80
Vedolizumab (**Entyvio**)	Polysorbate 80
Sarilumab (**Kevzara**)	Polysorbate 20
Dupilumab (**Dupixent**)	Polysorbate 80
Mepolizumab (**Nucala**)	Polysorbate 80
Secukinumab (**Cosentyx**)	Polysorbate 80
Tildrakizumab -asmn (**Ilumya**)	Polysorbate 80
Lanadelumab (**Takhzyro**)	Polysorbate 80
Metreleptin (**Myalept**)	Polysorbate 20
Aflibercept (**Eylea**)	Polysorbate 20
Ranibizumab (**Lucentis**)	Polysorbate 20
Brolucizumab (**Beovu**)	Polysorbate 80

Ocrelizumab (**Ocrevus**)	Polysorbate 20
Remdesivir (**Veklury**)	Polysorbate 20
Romosozumab (**Evenity**)	Polysorbate 20
Teprotumumab (**Tepezza**)	Polysorbate 20
Atoltivimab/maftivimab/odesivimab-ebgn (**Inmazeb**)	Polysorbate 80
Bamlanivimab	Polysorbate 80
Burosumab (**Crysvita**)	Polysorbate 80
Canakinumab (**Ilaris**)	Polysorbate 80
Casirivimab/ Imdevimab	Polysorbate 80
Eptinezumab (**Vyepti**)	Polysorbate 80
Fremanezumab (**Ajovy**)	Polysorbate 80
Inebilizumab (**Uplizna**)	Polysorbate 80
Raxibacumab	Polysorbate 80
Natalizumab (**Tysabri**)	Polysorbate 80

Muscle relaxant	Dantrolene sodium (**Dantrium, Ryanodex**)	Polysorbate 80
P-selectin inhibitor	Crizanlizumab (**Adakveo**)	Polysorbate 80
Proprotein convertase subtilisin kexin type 9 (PCSK9) inhibitor	Alirocumab (**Praluent**)	Polysorbate 20
	Evolocumab (**Repatha**)	Polysorbate 80
Rheumatologic	Belimumab (**Benlysta**)	Polysorbate 80
Thrombolytic	Tenecteplase (**Tnkase**)	Polysorbate 20
	Alteplase (**Cathflo Activase**)	Polysorbate 80
	Reteplase (**Retavase**)	Polysorbate 80
Vitamin infusion	Calcitriol (**Calcijex, Rocaltrol**)	Polysorbate 20
	Doxercalciferol (**Hectorol**)	Polysorbate 20
	Vitamins A, B1, B2, B6, C, D3, E, K (**Infuvite**)	Polysorbate 80

Northwestern Medicine®

Appendix 3

Immunization Administration Resources

Preparation of Needle Gauge and Length

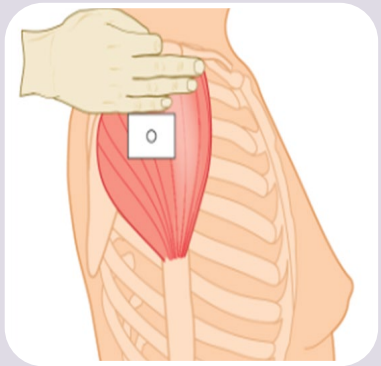
Route	Age	Needle gauge and length	Injection site
Intramuscular injection	Neonate, 28 days and younger	22–25-gauge 5/8 inch (16 mm[2])	Vastus lateralis muscle of anterolateral thigh
	Infants, 1–12 months	22–25-gauge 1 inch (25 mm)	Vastus lateralis muscle of anterolateral thigh
	Toddlers, 1–2 years	22–25-gauge 1–1.25 inches (25–32 mm)	Vastus lateralis muscle of anterolateral thigh[3]
		22–25-gauge 5/8[2]–1 inch (16–25 mm)	Deltoid muscle of arm
	Children, 3–10 years	22–25-gauge 5/8[2]–1 inch (16–25 mm)	Deltoid muscle of arm[3]
		22–25-gauge 1–1.25 inches (25–32 mm)	Vastus lateralis muscle of anterolateral thigh
	Children, 11–18 years	22–25-gauge 5/8[2]–1 inch (16–25 mm)	Deltoid muscle of arm[3,5]
	Adults, 19 years and older ▪ 130 lbs (60 kg) or less ▪ 130–152 lbs (60–70 kg) ▪ Men, 152–260 lbs (70–118 kg) ▪ Women, 152–200 lbs (70–90 kg) ▪ Men, 260 lbs (118 kg) or more ▪ Women, 200 lbs (90 kg) or more	22–25-gauge 1 inch (25 mm[4]) 1 inch (25 mm) 1–1.5 inches (25–38 mm) 1–1.5 inches (25–38 mm) 1.5 inches (38 mm) 1.5 inches (38 mm)	Deltoid muscle of arm[3,5]

[1] May be administered into the upper outer triceps area if necessary
[2] If the skin is stretched tightly and subcutaneous tissues are not bunched
[3] Preferred site
[4] Some experts recommend a 5/8-inch needle for men and women weighing less than 60 kg, if used, skin must be stretched tightly and subcutaneous tissues must not be bunched.
[5] The vastus lateralis muscle in the anterolateral thigh can also be used. Most adolescents and adults will require a 1- to 1.5-inch (25–38 mm) needle to ensure intramuscular administration.

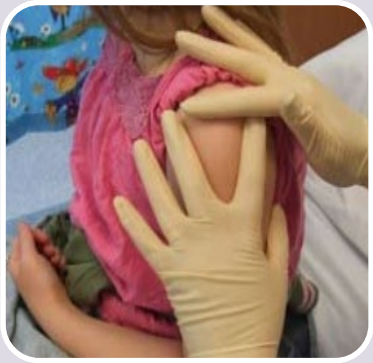
Vaccine Administration: Needle Gauge and Length (cdc.gov)

Administration of COVID-19 Vaccine

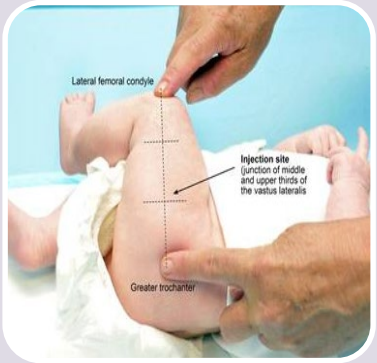
Intramuscular Injection



Place finger on acromion process. Place three fingers below the acromion process onto patient's lateral, upper arm. Injection site is just below bottom finger, as indicated by circle.



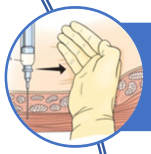
For younger children, place one finger horizontally under acromion process, and make a "V" with other hand to visualize center of deltoid.



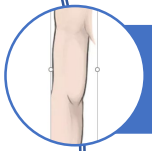
Visually divide into thirds the length of the muscle that originates on the greater trochanter of the femur to the upper border of the patella to find vastus lateralis.

Steps of COVID-19 Vaccine Administration

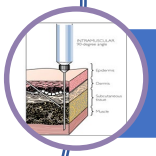
Cleanse injection site with alcohol pad using circular motion out about 2 inches and let dry.



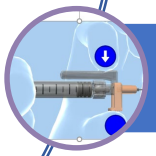
Use the z-track method to displace subcutaneous tissue.



Instruct patient to relax arm.



Insert needle at 90° angle to the skin using a steady and smooth motion.



Activate safety device per manufacturer guidelines, and apply gentle pressure with gauze pad. Then place adhesive bandage on site.

Dispose of used needle/syringe in sharps container.

Administration of COVID-19 Vaccine

Seven Rights of Medication Administration

DR. TOP MD
Dose ☑
Route ☑
Time ☑
Order ☑
Patient ☑
Medication ☑
Documentation ☑

MAs/ICTs are required to perform a two-person verification of the seven rights PRIOR to administration.

Patient COVID-19 Vaccine Card

Print COVID-19 vaccine cards from the Misc tab in Chart Review.