

Preventing Vaccine Errors: Strengthening Safety, Workflow and Team Communication

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Financial Disclosures

- Donna Furlong, faculty for this CE activity, has no relevant financial relationship(s) with ineligible companies to disclose.
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- The Arizona Alliance for Community Health Centers is accredited by the Arizona Medical Association to provide medical education for physicians.
- The Arizona Alliance for Community Health Centers designated the 2026 Arizona Immunization Conference educational activity for a maximum of 11 hours AMA PRA Category 1 Credits Physicians should only claim credit commensurate with the extent of their participation in the activity.
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Agenda



Why



Storage and Handling



Administration



Patient Scenarios



What Now?

Why do we talk about vaccine safety



- More than ever patients and families are questioning vaccines
 - Not hesitancy or even anti-vax
 - Just trying to know what is the right thing to do
- Resources that Health Care has relied on in the past to guide our practice have become less reliable.

What does that mean for you and your teams?

- We have to know how to very quickly HEAR what patients and families are asking
 - Listen for their WHY
 - Listen to hear
 - Listen to first understand
- We have to know our resources



Educate EVERYONE



- Give teams language to speak with patients/families.
 - Why vaccinate.
 - Why follow the CDC schedule.

Have the conversation



- Vaccines we don't carry – providers and teams should still be telling patients that these are vaccines they need
- Patients didn't ask

Storage and Handling

- Vaccines are temperature and light sensitive
 - Any temperature deviation should be evaluated
 - It is better **NOT to Vaccinate** than to administer a dose of vaccine that is not viable

What is an excursion?

- Any temperature outside the values set for a medication Manufacturer
 - Refrigerator –
 - 35° to 46° F
 - 2° to 8°C
 - Freezer –
 - -58° to 5° F
 - -50° to – 15° C



Temperature Logs



Daily Temperatures

Before using any medication
Towards the end of the day



High / Low Temperatures

Before using any medication
Reset the hi/lo recording

C **Temperature Log for Refrigerator – Celsius**
DAYS 1-15

For information on storage and handling of COVID-19 vaccines, see the **COVID-19 Vaccine Addendum** in CDC's updated **Vaccine Storage and Handling Toolkit** at www.cdc.gov/vaccines/imz/admin/storage/toolkit/index.html.

Month/Year _____ VFC PIN or other ID # _____ Page 1 of 2
Facility Name _____

Monitor temperatures closely!

- Write your initials below in "Staff Initials," and note the time in "Exact Time."
- If using a temperature monitoring device (TMD; digital data logger recommended) that records min/max temps (i.e., the highest and lowest temps recorded in a specific time period), document current and min/max (once each workday, preferably in the morning. If using TMD that does not record min/max
- Put an "X" in the row that corresponds to the refrigerator's temperature.
- If any out-of-range temp observed, see instructions to the right.
- After each month has ended, save each month's log for 3 years, unless state/local jurisdictions require a longer period.

temps, document current temps twice, at beginning and end of each workday.

Take action if temp is out of range – too warm (above 8°C) or too cold (below 2°C).

- Label exposed vaccine "do not use," and store it under proper conditions as quickly as possible. Do not discard vaccines unless directed to by your state/local health department and/or the manufacturer(s).
- Record the out-of-range temps and the room temp in the "Action" area on the bottom of the log.
- Notify your vaccine coordinator, or call the immunization program at your state or local health department for guidance.
- Document the action taken on the attached "Vaccine Storage Troubleshooting Record."

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Staff Initials															
Exact 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
Min/Max Temp in Unit (since previous reading)															

DANGER! Temperatures above 8°C are too warm! Write any out-of-range temps and room temp on the lines below.

TEMPERATURE	8°C	7°C	6°C	5°C
DATE				

VFC Refrigerator Temperature Log

Month/Year: _____
 Provider Name: _____
 Contact Person: _____
 VFC Pin #: _____
 Units/Rooms: _____
 (Identify which units you are recording temps for)

Refrigerated vaccine safety zone is between 36° to 46° F (2° to 8° C). 40° F is ideal. Frozen vaccine safety zone is 5° F (-15° C) or lower. 0° F or colder is ideal.

Call the Vaccine Center Immediately (602) 364-3642 if ANY temperatures are outside of the safety zones listed above.

Exact time, temperature to the tenth place, min/max for past 7 or C and initials are REQUIRED for each entry

DATE	TIME	REFRIG	MIN	MAX	INITIAL
1st	am	°F °C	°F	°F	
	pm	°F °C	°C	°C	
2nd	am	°F °C	°F	°F	
	pm	°F °C	°C	°C	
17th	am	°F °C	°F	°F	
	pm	°F °C	°C	°C	
18th	am	°F °C	°F	°F	
	pm	°F °C	°C	°C	

<https://www.immunize.org/catg.d/p3037c.pdf>

<https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/immunization/vaccines-for-children/forms/refrigerator-freezer-temperature-log.pdf>

Exact time, temperature to the tenths place

DATE	TIME	REFRIG	MIN	MAX
1st	am	CLOSED	°C	°F
	pm		°C	°C
2nd	am 8:00	3.9 °F °C	3.0 °F	8.2 °F
	pm 6:00	4.0 °F °C	3.0 °C	8.2 °C
3rd	am 7:30	4.0 °F °C	3.0 °F	8.2 °F
	pm 5:50	3.9 °F °C	3.0 °C	8.2 °C
4th	am 9:00	3.9 °F °C	3.0 °F	8.2 °F
	pm 5:00	3.9 °F °C	3.0 °C	8.2 °C
5th	am 0730	3.9 °F °C	3.0 °F	8.2 °F
	pm 4:40	3.9 °F °C	3.0 °C	8.2 °C
6th	am 7:43	3.9 °F °C	3.0 °F	8.2 °F
	pm 5:38	4.0 °F °C	3.0 °C	8.2 °C
7th	am 7:52	3.9 °F °C	3.0 °F	8.2 °F
	pm 12:30	3.9 °F °C	3.0 °C	8.2 °C

zones listed above.

Exact time, temperature to the tenths place, min/max, F or C and initials

DATE	TIME	REFRIG	MIN	MAX	INITIAL	DATE	TIME	REFRIG
1st	am	T°C	T	T		17th	am	
	pm	T°C	C	C			pm	
2nd	am 7:28	6.0 T°C	6.0 T	5.8 T		18th	am	
	pm 4:27	6.0 T°C	5.8 C	6.2 C			pm	
3rd	am 7:10	6.1 T°C	5.8 T	6.2 T		19th	am	
	pm 3:23	6.0 T°C	5.8 C	6.2 C			pm	
4th	am 7:19	5.9 T°C	5.8 T	6.2 T		20th	am	
	pm 4:25	6.0 T°C	5.8 C	6.2 C			pm	
5th	am 7:AM	6.0 T°C	5.9 T	6.2 T		21st	am	
	pm 2:50	6.0 T°C	5.9 C	6.2 C			pm	
6th	am 7:12	6.0 T°C	5.8 T	6.2 T		22nd	am	
	pm 4:09	6.0 T°C	5.8 C	6.2 C			pm	
7th	am 7:00	6.1 T°C	5.8 T	6.2 T		23rd	am	
	pm 4:45	6.0 T°C	5.8 C	6.2 C			pm	
8th	am 7:16	6.1 T°C	5.8 T	6.2 T		24th	am	
	pm 3:40	6.0 T°C	5.9 C	6.2 C			pm	
9th	am 8:26	5.9 T°C	5.8 T	6.2 T		25th	am	
	pm 5:32	5.9 T°C	5.8 C	6.2 C			pm	
10th	am 7:27	6.0 T°C	5.8 T	6.2 T		26th	am	
	pm 3:56	5.8 T°C	5.8 C	6.2 C			pm	
11th	am 7:AM	5.8 T°C	5.8 T	6.1 T		27th	am	
	pm 3:20	5.8 T°C	5.7 C	6.1 C			pm	
12th	am 7:11	6.0 T°C	5.7 T	6.1 T		28th	am	
	pm 2:34	5.8 T°C	5.7 C	6.1 C			pm	
13th	am 7:19	6.0 T°C	5.8 T	6.2 T		29th	am	
	pm	T°C	C	C			pm	

Steps of Excursion



- Mark all affected medications “DO NOT USE” – lock the unit
- Notify your vaccine champion / coordinator
- Report the issue to a leader
- Correct known issues



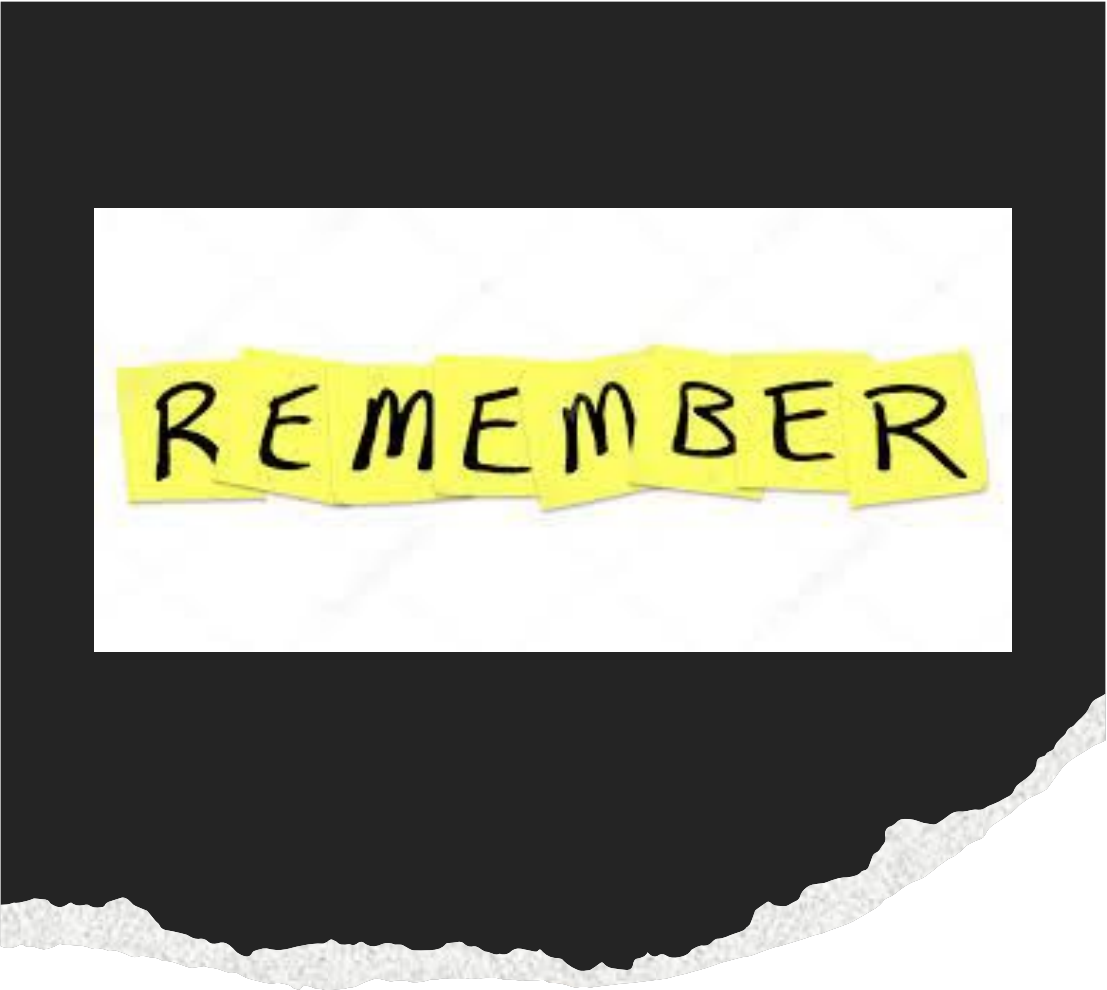
- Date/Time of excursion
- Affected Unit
- Room temperature if available
- Name of person completing the report
- Inventory (with lot numbers)



- Contact Manufacturers or Immunization program
- Have DDL data available



- Cure and educate staff as appropriate
- Replace the unit if necessary
- Follow the Vaccine Storage and Handling Toolkit guidance



REMEMBER

Screening Checklist for Contraindications to Vaccines for Adults

For patients: The following questions will help us determine which vaccines you may be given today. If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. If a question is not clear, please ask your healthcare provider to explain it.

1. Are you sick today?
2. Do you have allergies to medications, food, or a vaccine component?
3. Have you ever had a severe allergic reaction to a vaccine component?
4. Do you have a low immune system (e.g., diabetes, HIV, or cochlear implant)?

PATIENT NAME _____
DATE OF BIRTH _____ / _____ / _____
month day year

Screening Checklist for Contraindications to Vaccines for Children and Teens

For parents/guardians: The following questions will help us determine which vaccines your child may be given today. If you answer "yes" to any question, it does not necessarily mean your child should not be vaccinated. If a question is not clear, please ask your healthcare provider to explain it.

1. Is the child sick today?
2. Does the child have allergies to medications, food, or a vaccine component?
3. Has the child had a severe allergic reaction to a vaccine component?

	yes	no	don't know
1. Is the child sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the child have allergies to medications, food, or a vaccine component?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has the child had a severe allergic reaction to a vaccine component?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PATIENT NAME _____
DATE OF BIRTH _____ / _____ / _____
month day year

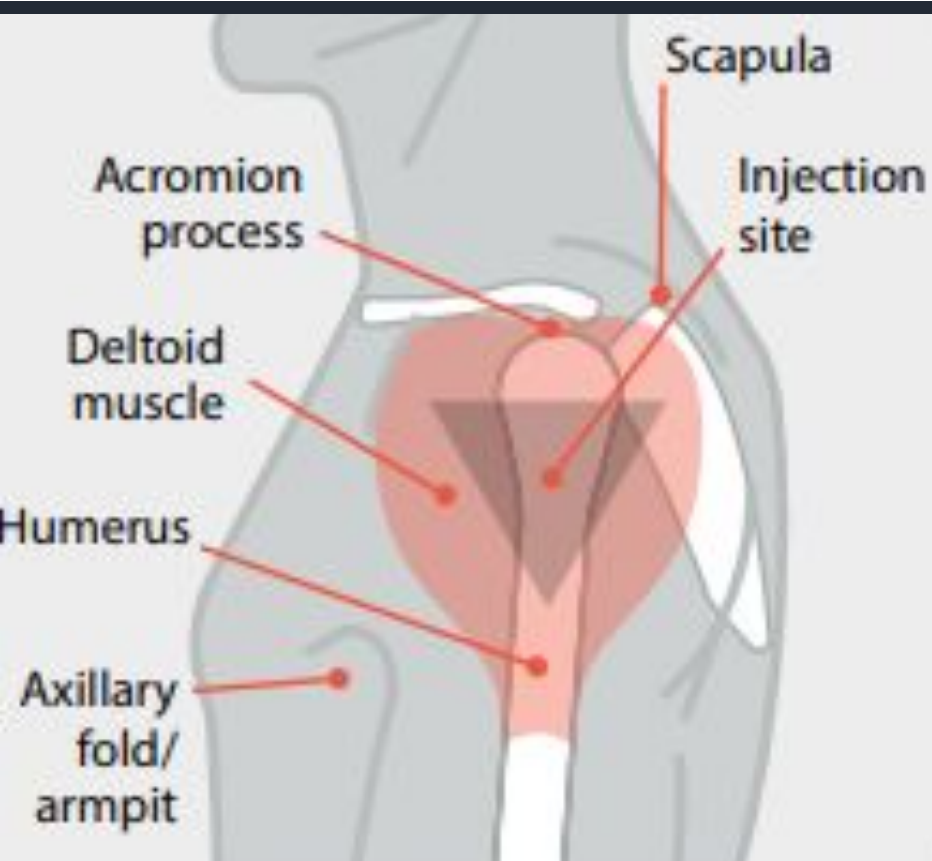
Screening forms





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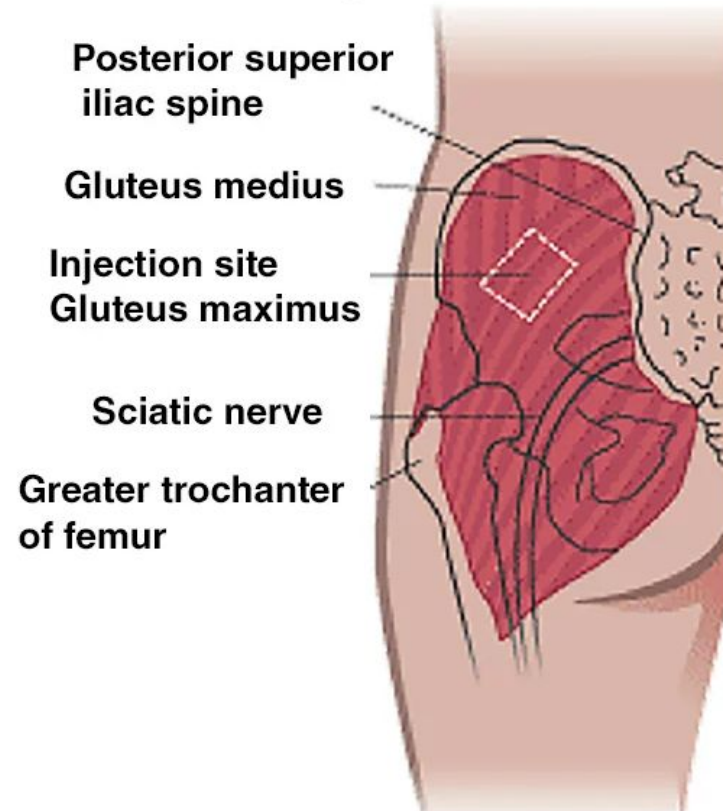
Wrong site



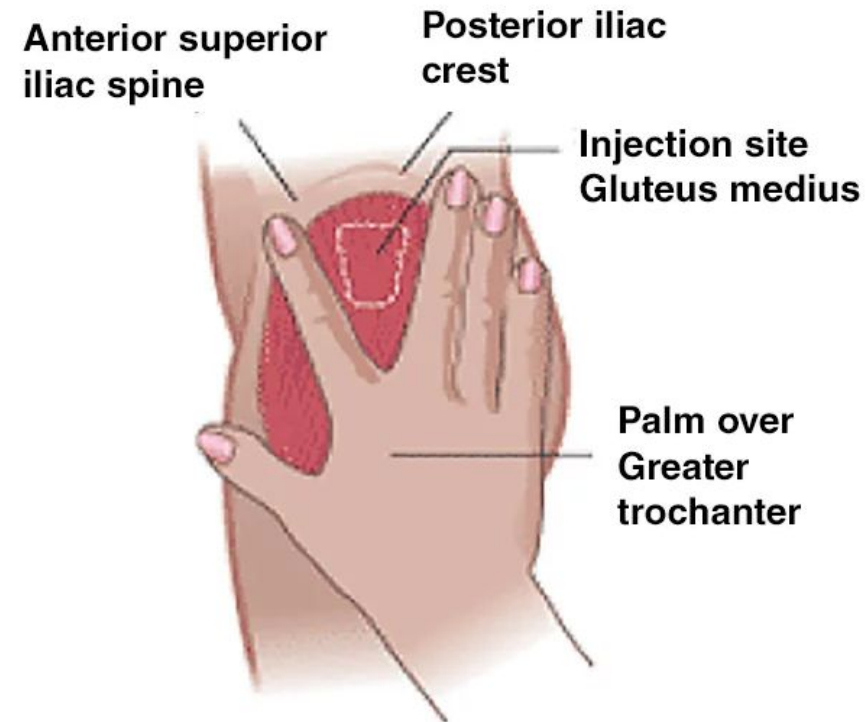
- Giving an IM vaccine in the gluteus maximus
- Missing our landmarks

Can you give an injection in the glute?

Dorsogluteal Site



Ventrogluteal Site





Reconstituting





Patient scenario

- Provider orders 1st dose of Rota at 16 weeks?



Patient scenario

Provider orders final dose
of Rota at 9mos?





Patient scenario

- HPV
 - Patient who is 15 years old today
 - How many doses?



Patient scenario

- HPV
 - Patient gets 1st dose at 11 years
 - 2nd dose – 3 mos later
 - Comes in for second dose 10 years later



Patient Scenario

- DTaP / IPV
 - Given to a 12-year-old for catch up



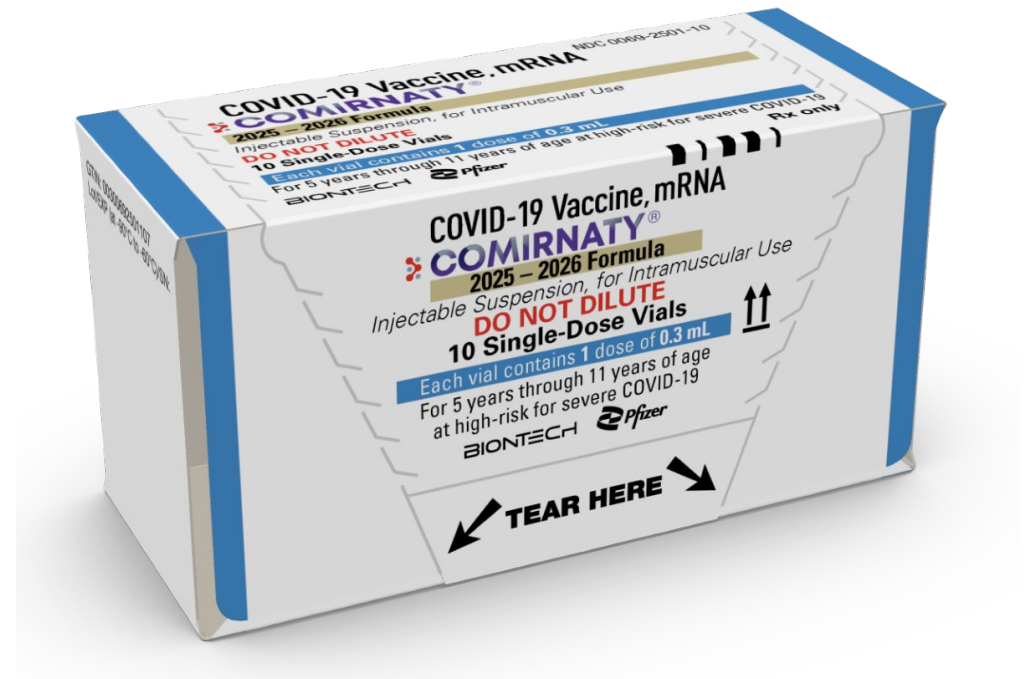


Patient Scenario

- Catch up – 7-year-old
 - What formulation (DTaP or Tdap)?
 - Do these children still get Tdap at 11?

Patient scenario

2-year-old given





Patient Scenarios

- Provider orders MMR and Varicella for 12 mos. old
 - Administrator gives MMRV
 - Administrator gives MMRV and Varicella



Patient Scenario

Covid 19 vaccine given to a
5-month-old

Patient Scenarios

- Patient needs Varicella but team is out of that vaccine
 - Shingrix is given



Expiration Date



Patient Scenario

- Pregnant woman is given Arexvy at 34 weeks
 - What does this mean for Mom and Baby
- According to the 2024-2025 VAERS and CDC Summaries
 - 128 pregnant women were reportedly given Arexvy for RSV prevention
 - 25 children under 2 received Arexvy or Abrysvo instead of the intended monoclonal antibody nirservimab





What do
we do
when there
is an error?



VAERS
Incident reporting



How will you
take this back
to your
colleagues?



Continuing Education

If you would like to claim CE Credits:

**A QR Code will be displayed in
the MAIN HALL
at the end of the day**

The following CE credits are available:

CMEs for Physicians (Doctors, NPs, PAs)

CE Contact Hours for Nurses (RNs, LPNs)

CMEs for Medical Assistants

Certified Health Education Specialists CEs
(CHES)

Social Worker CEs (National Association of
Social Workers)

Pharmacy Continuing Education



References:

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<https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>

<https://whyimmunize.org/>

<https://www.immunize.org/>

<https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>

<https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php>

<https://www.cdc.gov/vaccines/schedules/index.html>

