PARAMEDIC VACCINATION ADMINISTRATION PROGRAM

Expansion of Local Optional Scope of Practice

September 2020
OVERVIEW

• Local EMS agencies may seek approval from the California EMS Authority to develop a process and procedure, with their local health departments, to authorize paramedics to administer seasonal influenza vaccination, and when available, COVID-19 (SARS-CoV2) vaccination.
OBJECTIVES

• Briefly discuss public health principles for infectious disease and influenza
• Discuss general principles of vaccination
• Describe procedure for vaccination of EMS personnel, and high-risk populations
• Discuss process for paramedic seasonal influenza vaccination of high-risk public
• Discuss process for paramedic COVID-19 (SARS-CoV2) vaccination, when available
Influenza (flu) is a contagious respiratory illness, and its symptoms can range from mild to severe.

**Flu burden estimates for 2020 – 2021 season (CDC)**
- 39,000,000 – 56,000,000 flu illnesses
- 18,000,000 – 26,000,000 flu medical visits
- 410,000 – 740,000 flu hospitalizations
- 24,000 – 62,000 flu deaths

Flu vaccination this season will be vital to reduce the impact of respiratory illness and strain on the healthcare system during the COVID-19 pandemic.
Seasonal flu viruses change slightly every year; the composition of U.S. flu vaccine is reviewed annually and updated as needed to match circulating flu viruses.

No vaccine is 100% safe or effective; however, in conjunction with good hand hygiene, vaccines provide an excellent defense against infectious diseases.

In general, the benefits of a vaccine far exceed the risks posed by the disease.

Differences in the way individual immune systems react to a vaccine account for rare occasions when people are not protected.
• Clinical trials provide important information on vaccine safety
  • Rare side effects and delayed reactions may not surface until the vaccine is administered broadly
• The federal government established a surveillance system to monitor adverse events following vaccination
• Vaccine Adverse Event Reporting System (VAERS)
  • https://vaers.hhs.gov
PRINCIPLES OF VACCINATION

- **Immunity**
  - Antigen
  - Antibody

- **Passive Immunity**
  - Protection (antibodies) transferred from another human or animal

- **Active immunity**
  - Protection produced by the person’s own immune system
    - Cellular and humoral (antibody) immunity

- Flu vaccines cause antibodies to develop about two weeks after vaccinations
PRINCIPLES OF VACCINATION

• **Inactivated vaccine – influenza**
  • No live organism
  • No risk of transmitting influenza
  • Can generally use in persons with weakened immune systems

• **Live attenuated vaccine (not utilized under this LOSOP)**
  • Vaccine contains living but weakened virus
  • Produces a mild illness like the natural illness the vaccine is designed to protect against
  • Generally not used in those with weakened immune systems
Influenza virus vaccines are indicated for active immunization of adults and children against influenza disease caused by influenza virus types A and B.

The Advisory Committee on Immunization Practices (ACIP) has issued recommendations regarding the use of the inactivated influenza virus vaccine.

Annual vaccination with the current vaccine is necessary, because immunity declines during the year after vaccination.

Vaccine prepared for a previous influenza season should not be administered to provide protection for the current season.

COVID-19 vaccination frequency and specifics will be dependent on the specific vaccine manufacturer.
• Generally, everyone should get an age-appropriate vaccination.

• Who should not get the flu vaccine?
  • Children younger than 6 months
  • Individuals with severe life-threatening allergies to flu vaccine or vaccine component
  • Moderate-to-severe acute illness with fever
  • History of Guillain-Barre Syndrome within 6 weeks of a previous flu vaccination
SEASONAL INFLUENZA VACCINE

- Given by IM injection or intranasal route every year (Paramedics will only be utilizing the IM route)

- Priority groups generally include:
  - Elderly
  - Children
  - Healthcare workers, including EMS providers
  - Individuals at risk for developing serious flu-related complications, including those who are:
    - Pregnant
    - Immunocompromised
    - Diagnosed with chronic diseases (e.g. COPD, diabetes, heart disease, etc.)
Influenza (Flu) Vaccine (Inactivated or Recombinant): What you need to know

1 Why get vaccinated?

Influenza vaccine can prevent influenza (flu). Flu is a contagious disease that spreads around the United States every year, usually between October and May. Anyone can get the flu, but it is more dangerous for some people. Infants and young children, people 65 years of age and older, pregnant women, and people with certain health conditions or a weakened immune system are at greatest risk of flu complications. Pneumonia, bronchitis, sinus infections and ear infections are examples of flu-related complications. If you have a medical condition, such as heart disease, cancer or diabetes, flu can make it worse. Flu can cause fever and chills, sore throat, muscle aches, fatigue, cough, headache, and runny or stuffy nose. Some people may have vomiting and diarrhea, though this is more common in children than adults.

Each year thousands of people in the United States die from flu, and many more are hospitalized. Flu vaccine prevents millions of illnesses and flu-related visits to the doctor each year.

Influenza vaccine does not cause flu. Influenza vaccine may be given at the same time as other vaccines.

2 Influenza vaccine

CDC recommends everyone 6 months of age and older get vaccinated every flu season. Children 6 months through 8 years of age may need 2 doses during a single flu season. Everyone else needs only 1 dose each flu season.

It takes about 2 weeks for protection to develop after vaccination.
Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination

For patients (both children and adults) to be vaccinated: The following questions will help us determine if there is any reason we should not give you or your child inactivated injectable influenza vaccination today. If you answer “yes” to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

1. Is the person to be vaccinated sick today? □ yes □ no □ don’t know
2. Does the person to be vaccinated have an allergy to a component of the vaccine? □ yes □ no □ don’t know
3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past? □ yes □ no □ don’t know
4. Has the person to be vaccinated ever had Guillain-Barré syndrome? □ yes □ no □ don’t know

FORM COMPLETED BY ______________________ DATE __________________
FORM REVIEWED BY ______________________ DATE __________________
## Refrigerator Temperature Log

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### Instructions

1. Fill out month, year, refrigerator ID, and FNL.
2. Record the time and your initials.
3. Record a check if an alarm went off.
4. Record current Min. and Max.

### IF an alarm:

1. Clear Min./Max.
2. Ensure data logger is in place and recording.

### IF ALARM WENT OFF:

1. Clear Min./Max. and alarms symbol.
2. Record“Do Not Use Vaccine” symbol.
3. Alert your supervisor.
5. Record new SHOTS ID.
6. Ensure data logger is in place and recording.

### Supervisor’s Signature

When log is complete, check all that apply:
- [ ] Vaccineidge temperatures were recorded.
- [ ] Temperature were recorded twice daily.
- [ ] Records data files for all the days on this page in the same manner.
- [ ] Any deviations were reported to SHOTS at MyPCDexchang.org.
- [ ] Any deviations were reported to SHOTS at MyPCDexchang.org.
- [ ] We understand that filling this log is a prerequisite to vaccine management and removal from the PDC program.

Signed: ____________________________
Date: __/__/____
__________________________
Signature and Title

### Notes:

[1] SHOTS: California’s Vaccine Program
VACCINE HANDLING

- Vaccines are fragile and expensive
  - Hot and cold temperatures can damage vaccines
- Vaccines must be stored and managed properly
  - Store in refrigerators – per manufacturers recommendations
  - Monitor storage unit temperatures
  - Monitor temperatures when transporting vaccines
- Never use expired vaccines
VACCINE STORAGE

- Vaccine storage guidelines are mandatory (CDC and CDPH)
- Vaccines should be stored in a refrigerator as directed by manufacturers (Influenza is stored at 35°F to 46°F (2°C to 8°C), but COVID-19 vaccines may have more stringent storage requirements
- Place thermometers in the center of both the refrigerator and freezer
- Keep vaccines 2-3 inches away from walls, floor, doors, drawers, and other boxes
- Do not put food in the same refrigerator or freezer as vaccines
TRANSPORTING VACCINES

- Maintain the cold chain
  - Use hard-sided plastic insulated containers or Styrofoam™ coolers with at least 2-inch thick walls
  - Use a properly placed thermometer near the vaccine
  - Pack enough refrigerated/frozen packs to maintain the cold chain or utilize appropriate freezer
  - Keep vaccine vials in the box
  - Place an insulating barrier between vaccine vials and frozen packs
  - Attach labels to the outside of the container
VACCINE SIDE EFFECTS

- Soreness, redness, and/or swelling at injection site
- Headache
- Low-grade fever
- Nausea
- Muscle aches
- Fatigue
### VACCINATION FOLLOW-UP

<table>
<thead>
<tr>
<th>Provide</th>
<th>Provide vaccine information sheet</th>
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<tbody>
<tr>
<td>Advise</td>
<td>Advise reporting of any adverse reactions according to agency’s reporting plan</td>
</tr>
</tbody>
</table>
| Include | Plan must include reporting adverse advents to the Vaccine Adverse Event Reporting System (VAERS)  
  - www.vaers.hhs.gov |
VAERS REPORTABLE EVENTS

- Any signs or symptoms as dictated by the vaccine manufacturer – see package insert
- Anaphylaxis or anaphylactic shock (7 days)
- Shoulder injury related to vaccine administration (7 days)
- Vasovagal syncope (7 days)
- Guillain-Barre Syndrome (42 days)
- Any acute complication or sequelae (including death) of above events
- Events described in manufacturer’s package insert as contraindications to additional doses of vaccine (see package insert for appropriate time intervals)
INFLUENZA VACCINE ADMINISTRATION TRAINING FOR PARAMEDICS

September 2020
• Provide “Vaccine Information Sheet”
• Obtain consent for treatment prior to administration of the influenza vaccine, and document this appropriately using the “Consent for Treatment” form.
• Ensure completion of screening questionnaire prior to vaccine administration and keep a copy of this completed form.
GATHER NECESSARY EQUIPMENT

• Influenza vaccine (check lot number and expiration date)
• 23-25 g needle that is 1 inch in length
  • For larger patients, 1.5-inch needle may be more appropriate
• Alcohol prep swabs
PERSONAL PROTECTIVE EQUIPMENT

- Paramedics must maintain aseptic technique when administering the influenza vaccine.
- Wash hands prior to beginning vaccine administration process.
- Don gloves.
- Cleanse the area of the deltoid muscle with the alcohol prep.
Identify appropriate deltoid administration site:

2-3 finger widths down from the acromion process

Bottom edge is imaginary line drawn from axilla

ADMINISTRATION SITE IDENTIFICATION

• Identify appropriate deltoid administration site:
  • 2-3 finger widths down from the acromion process
  • Bottom edge is imaginary line drawn from axilla
VACCINE ADMINISTRATION

1. Insert the needle at a 90-degree angle into the muscle.
   - Pulling back on the plunger prior to injection is not necessary.

2. Inject the vaccine into the muscle.

3. Withdraw the needle, and using the alcohol prep, apply slight pressure to the injection site.
POST-VACCINE ADMINISTRATION

• Do not recap or detach needle from syringe.
• All used syringes/needles should be placed in puncture-proof containers.
• Monitor the patient for any symptoms of allergic reaction for requisite time period.
Document the following information:

- Date of vaccination
- Patient Consent
- Name of patient
- Injection site
- Vaccine lot number
- Vaccine manufacturer
• Give patient vaccine information sheet.
  • Use appropriately translated sheet for non-English speaking patients.
• Advise patient when to return for subsequent vaccinations, if required (required for some COVID-19 vaccines).