

Hospital Considerations for COVID-19 Vaccine Administration to Health Care Workers

Introduction

On Friday, Nov. 20, Pfizer and BioNTech formally applied¹ for an Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA) to distribute their jointly-developed COVID-19 vaccine.² The FDA has scheduled a review panel for Dec. 10, meaning that the state of Colorado could be on course to begin administering vaccines by mid-December. Moderna also announced the development of a COVID-19 vaccine and intends to submit for an EUA in the coming weeks.³

Per the [COVID-19 Vaccination Plan](#)⁴ developed by the state of Colorado and submitted to the Centers for Disease Control (CDC) on Oct. 16, vaccine distribution phase 1A is focused exclusively on inpatient and outpatient health care workers, meaning that hospitals will play a vital role in receiving and administering the first round of vaccines to arrive in the state.

To ensure hospitals are prepared to receive, store, educate, administer, monitor and document the vaccine(s), CHA convened a group of subject matter experts from member hospitals and health systems on Friday, Nov. 20 in order to develop a list of considerations for Colorado hospitals and health systems to work through in advance of the state plan being initiated. **It is important to keep in mind that the state of Colorado has decided that COVID-19 vaccines should be voluntary at this stage.**

The following is not intended to be exhaustive, as every hospital and health system is unique, but rather a facilitation tool intended to generate discussion.

Key Considerations

A great deal of work will be required of hospitals prior to receiving and administering the vaccine(s), including but not limited to: enrolling in tracking systems; completing provider trainings; developing storage capacity and protocols; identifying which clinical staff will receive the vaccine based upon supplies; establishing clinic administration procedures; ensuring electronic health record (EHR) compatibility with reporting systems; and communicating with staff and the general public about the vaccine.

Enrollment Processes

Individual and facility vaccine providers will be expected to enroll in various state and federal level systems before vaccine administration can begin. According to the Colorado COVID-19 Vaccination

¹ <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-announces-advisory-committee-meeting-discuss-covid-19-vaccine>

² With promising efficacy results, Moderna is also expected to apply for EUA from the FDA in the coming days or weeks. <https://www.nih.gov/news-events/news-releases/promising-interim-results-clinical-trial-nih-moderna-covid-19-vaccine>

³ <https://investors.modernatx.com/news-releases/news-release-details/modernas-covid-19-vaccine-candidate-meets-its-primary-efficacy>

⁴ <https://drive.google.com/file/d/1bxacXfm3ZsdXVG9RQavew1ck5W7D52bt/view>

Plan, the state is currently in the process of testing the Pandemic Provider Rapid Engagement Platform within the Colorado Public Health Reporting (CoPHR) portal that will enable providers to complete the COVID-19 and Colorado Immunization Information System (CIIS) enrollment processes in one centralized system. The Pandemic Provider Rapid Engagement Platform will also collect all required information from vaccine providers and input it on the official CDC COVID-19 Vaccination Program Provider Agreement and Profile Form.

Provider Training and Certification

In addition to enrolling in the various systems, providers will be expected to complete COVID-19-specific trainings and upload completion certifications through the Pandemic Prep platform. According to the Colorado COVID-19 Vaccination Plan, the state will rely on CDC-developed materials and trainings when possible. All staff planning to administer the COVID-19 vaccine should have proper certification for vaccine administration.

Vaccine Storage

Each of the vaccines currently in Phase 3 of clinical trials have different storage requirements. With the Pfizer vaccine looking most likely to be the first to arrive in the state, hospitals will need ultra-cold (-70C) storage freezers or alternative ultra-cold storage (e.g., dry ice) available in their pharmacies or secured storage in the hospital lab. Clear protocols will need to be developed for who will have access to the vaccines, how the vaccines will be secured, regular temperature checks, how the vaccines will be transported from storage to the administration site and what to do if the storage unit fails or loses power.

Tiering Staff

Initial distributions of the vaccine(s) will likely be limited, meaning that further stratification within Phase 1A and 1B in the state's COVID-19 Vaccination Plan may be needed. Hospitals and health systems should develop a process for tiering clinical and non-clinical staff.

Vaccine Administration Site

Most, if not all hospitals in Colorado have processes in place for administering other vaccines to their staff. These plans should be revisited and updated as necessary in order to administer the COVID-19 vaccine(s). The clinic or administration site should be selected and properly equipped with PPE, sharps containers, epinephrine and Benadryl in cases of an allergic reaction. A staffing plan should also be established for the administration site, and all staff should be properly trained and certified in advance for COVID-19 vaccine administration. Finally, a scheduling system (or walk-in hours) should be clearly communicated to eligible clinical staff.

Reporting Connectivity and Second Dose Administration

Hospitals will be required to document, monitor and report vaccinations as they are administered, as well as potential side effects of the vaccine(s). In conversation with hospital subject matter experts, at least two health systems plan to schedule, document and report through their EHRs.⁵ Hospitals and health systems should consider if their EHR has this functionality and what steps are necessary in order to set up this process in advance of the vaccine's arrival. Alternatively, if reporting will not be completed through the EHR, clear processes will need to be developed and

⁵ These particular health systems are on the EPIC system, but most EHRs should have the capability to document and report this information.

communicated prior to the vaccine's arrival. Finally, a process for scheduling the administration of the second dose will need to be established.⁶

Internal and External Communications

Given the rapid pace at which the COVID-19 vaccine(s) are being developed, there are, understandably, many questions among hospital staff, the media and the general public. The Colorado Department of Public Health and Environment (CDPHE) has plans to post FAQs, fact sheets and other resources for providers and the public online. Hospitals and health systems are encouraged to develop a communications plan outlining information regarding the vaccine(s) and hospital plans for administration.

COVID-19 Preparation Checklist

To assist hospitals in preparation for Phase 1 of the Colorado COVID-19 Vaccination Plan, CHA developed the following checklist. The considerations below are not exhaustive but will help hospital or health system begin this time-sensitive planning process.

Staffing:

- Assess staffing capacity for planning clinics and process for training staff involved.
 - Are hospital providers enrolled in the Pandemic Provider Rapid Engagement Platform (PREP)?
 - Are provider trainings clearly communicated and documented?
 - Are all providers planning to administer the COVID-19 vaccine properly certified for vaccine administration?
- Work with occupational health partners to determine their capacity for vaccination clinics and potential barriers to their participation.

Storage and Handling:

- Identify refrigerators and freezers to store the vaccine. Assess capacity and process for storing and monitoring vaccine, including continuous vaccine temperature monitoring.
 - Does the hospital have a secure storage plan and protocols in place?
- Hospitals should work with materials managers, engineers and risk managers to establish facility guidelines around what is and is not possible. As part of this, the hospital will need to make sure its receiving teams understand the process for receiving vaccine deliveries, including performing a temperature check.
- Review CDC's new COVID-19 [Vaccine Storage and Handling Toolkit \(cdc.gov\)](https://www.cdc.gov/vaccines/imz/downloads/#COVID-19)

Tiering Clinical Staff:

- Develop a plan to stratify clinical staff based upon risk for transmission.
- Determine the number of clinical staff in each tier, and discuss scenarios and methods for sub-prioritization with clinical staff if there is only enough vaccines to vaccinate 10%, 25% or 50% of the tiered groups, for example.

Safe Administration:

- Assess processes for monitoring and tracking staff and patients receiving vaccine, and processes for reminding staff or patients about their second dose.

⁶ The vaccines under development have different intervals for administration of the second dose. When working with multiple vaccines, hospitals should ensure processes account for these different intervals.

- Have eligible clinical staff been informed of how to schedule vaccine appointments, or when and where walk-in hours are available?
- How will administration of the second dose be scheduled?
- Select a clinic or administration site and properly equip the site with PPE, sharps containers, epinephrine and Benadryl.
- Ensure adequate PPE outside the ancillary kits to safely administer the vaccine. (Note: ancillary kits will have syringes of various gauges, needles, alcohol swabs, two face shields and four surgical masks, but hospitals will need to have adequate PPE outside the ancillary kits to safely administer the vaccine.)
- Ensure administration sites are staffed with security to discourage any safety issues with individuals who are not yet eligible.
- Ensure the hospital has a way to document, monitor and report vaccinations to the appropriate authorities.

Operations:

- Develop and maintain a current list of vaccination points of contact/chain of command at the hospital.
- Review or develop operational plans for vaccinating staff. Plans should include steps to ensure safety, reduce crowding, verify that only employees receive the vaccine and follow physical distancing recommendations.
- Ensure the hospital has tested the vaccination plans.
 - Has the hospital conducted a tabletop exercise?
- Has the hospital considered any necessary associated policies?
 - Depending on how the vaccine is being allocated, will the hospital need to adjust additional policies?
 - For example, will high-level PPE precautions remain in place for those who have received the vaccine?
 - Will the hospital adjust patient care assignments to pair vaccinated staff with COVID-19-positive patients?

Communication:

- Ensure the hospital is providing regular updates to employees, medical staff and affiliated community physicians to remain transparent.
 - Has the hospital developed a communications plan?

Resources:

- Review [Colorado's COVID-19 Vaccination Plan](#), especially with regards to Distribution Phase 1A, which is focused exclusively on inpatient and outpatient health care workers.
- Review CDC guidance for planning vaccination clinics and pandemic influenza:
 - CDC, [Pandemic Influenza Vaccine Targeting Checklist](#)
 - CDC, [Guidance for Planning Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations](#)
 - CDC, [Vaccination Guidance During a Pandemic](#)
- Review the Immunization Action Council, [Resources for Developing Mass Vaccination Clinics](#)
- Review the National Adult and Influenza Immunization Summit, [Checklist of Best Practices for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations](#)
- Review the [American Hospital Association's Vaccination Resource](#)