



COVID-19 Vaccination Considerations for Paramedics

NOTE: This document will be updated as new information or vaccines become available.

The American Paramedic Association (<https://americanparamedics.org/>) and the National EMS Management Association (<https://www.nemsma.org/>) strongly recommend that all paramedic (EMS) practitioners¹ receive a COVID-19 vaccination as soon as possible. This recommendation is based upon: (1) paramedics are at a very high risk of contracting and transmitting COVID-19 to others; (2) The COVID-19 vaccinations are thoroughly tested, safe, and effective; and (3) many consider it an ethical choice and professional responsibility to be vaccinated against COVID-19 as soon as possible.

Background

Paramedics are at higher risk of death from COVID-19 than other healthcare providers or first responders. In the U.S., paramedic COVID-19 related deaths are about three times greater than nurses, five times greater than physicians, and 20% greater than police and firefighters.ⁱ Since COVID-19 can be transmitted well before the patient is symptomatic, paramedics are not only disproportionately vulnerable to the virus but can easily transmit the virus to others. This unique combination of vulnerability and risk should place paramedics at the front of the line for COVID-19 vaccination.

The Centers for Disease Control places paramedics in the highest priority for COVID-19 vaccination: Phase 1a Vaccination. Other health care personnel and Long-Term Care Facility residents are in the same category. Among all public health and safety professions, paramedics are the only ones that routinely contact all of the other first responders and essential healthcare workers. In every shift, paramedics encounter hospital staff, law enforcement officers, firefighters, long-term care facility residents and staff, and the general public. Yet, many health authorities are unaware of these risks to paramedics or do not distinguish EMS from their fire department or police counterparts.

COVID-19 Vaccines and Timelines

Two vaccine manufactures, Pfizer/BioNTech (Pfizer) and Moderna, filed for Emergency Use Authorizations (EUA) of their COVID-19 vaccines to the Food and Drug Administration on November 20, 2020. If one or both of these requests are approved, the vaccine could be used in high-risk populations, such as paramedics, by mid-December 2020. Vaccines are being pre-positioned around the country now. Forty million doses should be available by the end of December, and 5 to 10 million more doses available each week.

¹ This document makes use of the new EMS nomenclature to improve the ability for federal, state, and local officials to understand the importance of these issues on all EMS practitioners. The term paramedic is inclusive of EMT, AEMT, and Paramedic licensure levels.

COVID-19 Vaccination Considerations for EMS Agencies and Practitioners

Pfizer Vaccine

The Pfizer COVID-19 vaccine must be stored and shipped frozen (-94 F/-70 C).ⁱⁱ It requires two injectionsⁱⁱⁱ 21 days apart.^{iv} The Pfizer vaccine has an efficacy rate of 95%, with no serious safety concerns observed to date^{vii} and is proven safe and effective. The most common adverse reactions included injection site pain and self-resolving fever or chills. Small numbers of younger recipients also reported fatigue, headache, muscle pain, and joint pain.^{vii}

Moderna Vaccine

The Moderna COVID-19 vaccine will be stable at refrigerated temperatures (36-46 F/2-8 C).^{viii,ix} It requires two injections^x 28 days apart.^{xi} The Moderna vaccine has an efficacy rate of 94%, with no serious safety concerns identified to date^{xii xiii} and is proven safe and effective. The most common adverse reactions included injection site pain, fatigue, muscle weakness, headache, and redness at the injection site.

Vaccines are Safe: Vaccine Development, Testing, Approval and Follow Up

The Pfizer and the Moderna COVID-19 vaccines have been developed and tested under rigorous safety and effectiveness protocols, overseen by numerous government agencies and independent review bodies. Both vaccines are safe and effective, with an adverse reaction rate comparable to other vaccines already in widespread use.

Before either the Pfizer and Moderna vaccines were considered for human trials, investigators and an ethics committee had to be convinced, through scientific evidence, that the vaccines were likely to be safe and effective. Potential vaccines are studied in Phase 1 trials to determine vaccine safety in humans. Phase 2 trials examine the effects of different doses and verified vaccine safety and effectiveness using more volunteers. Phase 3 trials involved tens of thousands of volunteers. Phase 3 trials continued to evaluate vaccine safety and demonstrated that those who received the vaccine had lower infection rates than those who have not.^{xiv}

Beyond the scrutiny the Pfizer and Moderna vaccines received during their Phase 1 through 3 trials, both vaccines will receive additional scrutiny during the Emergency Use Authorization (EUA) approval process. The FDA can only issue an EUA if the Secretary of Health and Human Services declares a public health emergency caused by a life-threatening disease and the benefits outweigh the known and potential risks when used to prevent the life-threatening disease.^{xv}

It is important to remember that although Operation Warp Speed has dramatically accelerated vaccine development speed, this was accomplished through more significant funding, and none of the FDA's normal regulatory and approval processes were circumvented.

After the Vaccination

The COVID-19 vaccination program in the United States includes monitoring for vaccine safety through the Vaccine Adverse Event Reporting System (VAERS), operated by the Centers for Disease Control and the Food and Drug Administration. VAERS will rapidly review reports of serious adverse events from the COVID-19 vaccine as it does many others. They will investigate clusters of adverse events and provide clinical case reviews. Additionally, vaccine manufacturers will monitor those vaccinated for long-term protection and safety two years after their second dose. In the event of an adverse event caused by the COVID-19 vaccine, those vaccinated may be eligible for financial compensation from the National Vaccine Injury Compensation Program.

National Vaccine Injury Compensation

When a vaccine causes a serious problem in those rare cases, the National Vaccine Injury Compensation Program (VICP) may provide financial compensation. Even in cases where it is determined that the vaccine did not cause the problem, payment may be received through a settlement. The VICP has provided financial compensation in those rare cases where a vaccine has caused a serious problem since the 1980s.^{xvi}

It's Your Choice: Politics, Ethics, and Professional Responsibility

Throughout 2020, the response to the COVID-19 pandemic has been heavily politicized throughout the United States. For many, whether to stay at home, social distance, or wear personal protective equipment (PPE) is a political decision, rather than a clinical decision.

Paramedics have written this document for paramedics. We are not politicians and are only interested in your health and safety. We strongly recommend that you receive the COVID-19 vaccine as soon as it is available.

Paramedics are not being placed at the head of the vaccination line as “guinea pigs.” Instead, the CDC and Federal officials have finally recognized our significant contribution to treating and limiting the spread of this disease and are protecting us accordingly. This is an opportunity we should not squander.

- Receiving the COVID-19 vaccine is essential to protect you, your partner, and your family. Too many paramedics have died and become ill due to COVID-19.
- Receiving the COVID-19 vaccination is consistent with your professional and ethical responsibility to do no harm because paramedics can transmit the COVID-19 virus before showing symptoms, resulting in COVID-19 being transmitted among patients and hospitals and to family members.
- The American Ambulance Association, in a letter to the U.S. Department of Health and Human Services, described our 911 system as “at the breaking point” due to the financial and operational stresses of the coronavirus pandemic. Widespread vaccination of paramedics has the potential to significantly ease the operational pressures on our nation’s EMS systems as Federal officials move to resolve the financial burden on the 911 system.^{xvii}

Recommended Actions

Paramedics should:

1. Be vaccinated as soon as possible.
2. Educate themselves on potential vaccines and associated limitations.
3. Educate their loved ones, families, and friends on potential vaccines and associated limitations.
4. Be familiar with their organizational vaccination policy and procedures.
5. Be familiar with their organizational vaccination triage protocols.
6. Understand the side effects or adverse reactions that may develop and how to report them.
7. Understand the vaccine will reduce the likelihood of illness but does not guarantee immunity to them or those around them.
8. Understand the implication of receiving the vaccine long before it is available to loved ones, families, and friends.

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9. Understand the continued need to wear appropriate PPE while providing care or administering treatments and following all organizational protocols, policies, and procedures.
10. Understand the continued need for facial coverings and social distancing away from home.
11. Maintain compliance with organizational, local, state, and federal recommendations and guidelines related to SARS-CoV-2.

Leaders of Paramedic Agencies should:

1. Update organizational protocols, policies, and procedures to accommodate a COVID-19 vaccination program.
2. Update patient care protocols to accommodate a COVID-19 vaccination program.
3. Educate health authorities about the differences in first responder organizations' risks, roles, and responsibilities to assure their paramedics are correctly prioritized in COVID-19 Vaccination Phase 1a.
4. Educate paramedics and their labor unions on the importance of COVID-19 vaccination.
5. Plan for loss of workforce up to 36 hours if post-vaccination adverse or untoward symptoms develop.
6. Consider coordinating with neighboring agencies or mutual aid partners to ensure the staffing redundancy.
7. Establish an organizational policy to comply with mandatory post-vaccination reporting for adverse reactions.
8. Verify whether Public Health Emergency Leave (or workman's compensation coverage) applies to vaccine adverse reactions.
9. Consider using closed PODs (points of distribution) for paramedics & other first responders. PODs should not be made public and conducted in controlled locations such as EMS/Fire/Police facilities or similar sites. Family or household members should be included if supply allows.
10. Plan for a CDC recommended 15-minute observation period post-vaccination. Paramedics & first responders can return to work if no reaction develops.
11. Provide each person vaccinated with information about potential COVID vaccine side effects and what to do if a reaction or related illness develops.
12. Consider halving initial vaccine caches to account for the second dose. Second doses need to be from the same manufacturer to ensure effectiveness.
13. Plan for vaccine storage challenges as most commercial freezers cannot reach the ultra-cold temperatures necessary for vaccine storage. Work with local health departments, local health care facilities, or Occupational Safety and Health Services to locate proper cold storage if needed.
14. Plan for essential and required record keeping. Update electronic medical records systems to accommodate vaccination protocols if possible. Vaccination cards should be included in the vaccine supply cache.
15. Plan to use paramedics to their full scope of practice in distributing and administering vaccines to the public.
16. Establish vaccination triage protocols:
 - a. "Through the door" Paramedics
 - i. First in – last out
 - ii. Transport paramedics and equipment operators
 - iii. Cleaning/disinfecting staff
 - iv. Proximity greater than 15 minutes
 - b. Paramedics with pre-existing medical conditions

- c. Paramedics over 45 years of age
- d. Non-patient care providers are vaccinated last.



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