COVID-19 Vaccines

Updated January 6, 2021

At this writing both the Pfizer-BioNTech COVID-19 and the Moderna vaccines have been given emergency use authorization by the FDA. The following is regarding safety with these vaccines, especially regarding allergy.

Main points

- Allergic reactions to vaccines, in general, are rare.
- The mRNA COVID-19 vaccines should be administered in a health care setting where individuals must be observed for at least 15-30 minutes after injection to monitor for any adverse reaction.
- According to the CDC, if a patient has a severe allergic reaction after getting the first dose of an mRNA COVID-19 vaccine, they should not get the second dose.
- The mRNA COVID-19 vaccines should not be administered to individuals with a known history of a severe allergic reaction to any component of the vaccine.
- Although the specific vaccine component causing the anaphylaxis has not been identified, ***polyethylene glycol*** is one of its ingredients and has been known to cause anaphylaxis. Therefore an mRNA COVID-19 vaccine should not be administered to individuals with a known history of a severe allergic reaction to polyethylene glycol.
    - Due to potential cross-reactive hypersensitivity, people with known allergies to PEG-like molecules such as ***polysorbates*** should also not receive the vaccines unless an allergist has approved the vaccination.
    - Polysorbate 80 is an ingredient in in the AstraZeneca COVID-19 vaccine, which is already in use in the U.K. and may be authorized in the U.S. in early 2021.
    - In addition, polysorbate 80 is in other adenovirus-based vaccines such as certain DTaP (diphtheria, tetanus, pertussis), hepatitis A and B, HPV (human papillomavirus), influenza, meningococcal, pneumococcal, and rotavirus vaccines, as well as one of the shingles vaccines.

- Individuals with common allergies to medications, foods, inhalants (pollen, dust mites, mold, pets, etc.), insects and latex ***are no more likely*** than the general public to have an allergic reaction to the mRNA COVID-19 vaccines.
- The risk in individuals with a history of ***allergic reactions to previous vaccinations*** and/or ***mast cell activation syndrome/idiopathic anaphylaxis*** is very limited and evolving. If either applies, the decision to administer a COVID-19 vaccine should be discussed with your physician.
- The mRNA COVID-19 vaccines are ***not live vaccines*** and can be administered to immunocompromised patients; however there is the possibility of a diminished immune response to the vaccine.