Considerations for COVID-19 Vaccination in Immunocompromised Patients

Immunocompromised patients include persons with HIV infection, other immunocompromising conditions, or persons who take immunosuppressive medications or therapies.

Are persons who are immunocompromised at increased risk of COVID-19 or its complications?
According to CDC, immunocompromised patients might be at increased risk for severe COVID-19. This includes increased risk for hospitalization, mechanical ventilation, and death.

Is the COVID-19 vaccine safe for immunocompromised patients?
All vaccines go through extremely rigorous testing both before and after they are offered to the public. Phase 3 trials—the final stage of testing—include tens of thousands of volunteers, half of which receive a vaccine. However, the Pfizer-BioNTech and Moderna COVID-19 vaccine study did not include persons who were immunocompromised, so we do not know for sure about the safety of the vaccine in this population.

In the vaccine studies, there was no difference in the occurrence of serious adverse events between those who received the vaccine and those who received the placebo. Because the vaccines were authorized for emergency use (EUA), we do not yet know about the long-term safety. The FDA, CDC, and the manufacturer are continuing to monitor safety.

Will the COVID-19 vaccine protect immunocompromised patients from COVID-19?
Unless a vaccine is proven to be 100% effective for everyone, there’s no guarantee a person who is immunosuppressed won’t contract COVID-19. Individuals who are immunocompromised may not have as strong of an immune response as others with healthy immune systems.

At this time, the CDC recommends everyone who receives the COVID-19 vaccine continue to take other measures to protect themselves against COVID-19, including wearing a mask that covers the nose and mouth, washing hands frequently, and maintaining social distancing. It is especially important for patients who are immunocompromised to continue to take these measures to protect themselves.
What are the common adverse events from the vaccine?
The most common adverse events following immunization with mRNA COVID-19 vaccines are local injection site pain, fatigue, headache, chills, muscle and joint pain, and fever. Adverse events most often occurred within the first 3 days following vaccination, and usually resolved within 1 day of onset. If fever occurs following vaccination, individuals can take acetaminophen to treat the fever.

What if an immunocompromised patient experiences an adverse effect after receiving the vaccine?
A new smartphone-based, after-vaccination health checker for people who receive COVID-19 vaccines called V-safe has been launched. V-safe uses text messaging and web surveys from CDC to check in with vaccine recipients following COVID-19 vaccination. V-safe also provides second vaccine dose reminders if needed, and telephone follow-up to anyone who reports medically significant (important) adverse events. All persons who receive a COVID-19 vaccine are encouraged to download V-safe to their smartphone or other electronic device. Further, vaccine recipients should report any suspected adverse effect to their health care provider, in addition to reporting it through V-safe.

Acknowledgement: Thank you to Michael Hogue, PharmD, FAPhA, FNAP, and Loma Linda University for compiling this information.