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Support for Vaccines from the American College of Rheumatology: Information for Members to Share with Patients

Vaccinations are in the news again due to the urgent need for new vaccines against SARS-CoV-2 (i.e. the novel coronavirus that causes COVID-19).

Rheumatologists have a long history of recommending specific vaccinations to our patients. This is because patients with rheumatologic conditions frequently take medicines which may:

1) Make them more susceptible to infections
2) Reduce their ability to mount an effective immune response following vaccination, and
3) Increase the risk associated with live vaccines.

The American College of Rheumatology (ACR) has been following with great interest the intensive efforts of the international scientific and medical community to develop a vaccine against COVID-19. Currently there are approximately 135 vaccines in development worldwide. Many of these are being developed using tried-and-true approaches which have worked in vaccines developed previously for other diseases. Some are using novel approaches. All are now undergoing or will undergo rigorous testing in clinical trials, to test the vaccines in a large population with a range of ages, ethnicities, and health problems. Each vaccine candidate will be carefully evaluated for effectiveness in preventing COVID-19, or in reducing the severity of COVID-19. Each study will also include close monitoring of all participants to evaluate the safety of the vaccine and to make sure there are not any unexpected adverse events.

We anticipate that any vaccine which is approved for use in the United States will have robust and extensive data showing that it is safe and effective against COVID-19. Once such a vaccine becomes available, the ACR will recommend that all eligible individuals, including our patients and co-workers, be vaccinated.

A few additional things to know about vaccinations:

How effective are most vaccines?
Most vaccines offer some protection against infection but not do not give patients complete immunity. This is likely to be the case with vaccines against COVID-19 as well. However, even partial protection will be helpful both to patients and the general public. Partial protection may mean that most but not all vaccinated people develop immunity, or that some people develop partial immunity, so that even if they develop COVID-19 infection, the symptoms of that infection will be less severe.

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How risky are vaccines in general?
Historically, the benefits of vaccination (preventing or reducing the severity of infection) have far outweighed any risk from the vaccine. One exception may be for patients who are on very strong immunosuppressive medications. In that case, live-attenuated vaccines, which contain virus that is weakened but still living, may not be safe. In general, patients taking chronic prednisone at 10 mg daily or higher, and possibly patients taking biologic medications, should avoid live-attenuated vaccines until and unless those vaccines have been demonstrated to be safe in such patients. Live-attenuated vaccines generally take longer to develop than other vaccine techniques, so it is most likely that the earliest vaccines released against COVID-19 will not be live-attenuated vaccines.

How long will protection last after I am vaccinated?
We do not yet know how long patients are protected from reinfection after having COVID-19. There have been a small number of cases reported where a patient clearly developed a second COVID-19 infection, after having an initial previously documented infection. We have even less information about how long protection will last following a vaccine against COVID-19. All people receiving vaccines against COVID-19, or recovering from COVID-19, should understand that prior infection or vaccination may not provide long lasting protection from future infections.

What is herd immunity?
When a large portion (estimated to necessarily be as high as ~70% in the case of COVID-19) of the people in a population are immune to a virus, it becomes difficult for that virus to spread within that population. This phenomenon, known as herd immunity, helps protect individuals who are not immunized, even though they are not immune. This is especially important to members of a population who are poor candidates for vaccines, or who do not mount an effective response to vaccines, and to patients who are at risk of severe disease should they contract the virus. Therefore, we highly encourage all eligible individuals be vaccinated, with the goal of vaccinating enough of the population to enable us to develop herd immunity, so that the COVID-19 virus will no longer be able to spread throughout the community.

When will I be able to be vaccinated?
The United States faces a tremendous challenge in developing safe and effective vaccines and in scaling up production and distribution to be able to administer the vaccines efficiently and in large numbers to the population. Considerable investment has been made in scaling up production lines even before specific vaccines are approved. However, we anticipate that with initial vaccine roll outs, supplies will be limited and will be allocated to populations felt to be most at risk for exposure to COVID-19, and for severe illness with COVID-19 infection. Medical ethics experts in the United States and around the world are weighing these questions. In the U.S., the CDC historically has provided guidance for the use of vaccines in the civilian population. Likely candidates for initial vaccination will be first-line responders, healthcare workers, and vulnerable populations such as the elderly.