"Alaska is in a race between the spread of COVID-19 and our efforts to distribute and administer two highly effective vaccines... Alaska is stronger when we work together." ~ Anne Zink, Chief Medical Officer, State of Alaska.

CHAP Weekly Update

January 22, 2021

COVID-19 Vaccine and Auto-Immune Disorders

What do we know about COVID-19 vaccines and auto-immune disorders?

- There were very few people with auto-immune disorders included in Phase three trials for the vaccines. Of the 30,000+ patients in the Pfizer phase three trials, only 118 patients had some kind of rheumatic disease.
- Patients taking immunosuppressive therapy were excluded from the trials.

Although there is limited data, there are reasons to feel optimistic.

Are the vaccines safe for people with auto-immune disorders?

- We know that people with auto-immune disorders should not get live vaccines or live attenuated vaccines such as MMR, Varicella or the nasal form of Influenza vaccine (LAIV).
  - ◇ There is NO live virus in the mRNA vaccines from Pfizer and Moderna.
  - ◇ mRNA itself should not be a problem for people with auto-immune disorders.
- **Will the vaccine cause a disease flare?**
  - ◇ So far, these vaccines don't appear to cause a disease flare.
- **Will immunocompromised people be more likely to get an allergic reaction?**
  - ◇ So far, no.

Efficacy – Does the vaccine work in people with auto-immune disorders?

- Some vaccines are less effective in immunocompromised people, especially if they are taking medicines such as methotrexate.
- Influenza vaccine data shows that even if the vaccine is less effective, it still provides protection against serious illness and hospitalization.
- Anything that reduces infection, even if it isn't perfect, is a good thing.
- Studies are currently examining antibody production in immunocompromised people after COVID-19 vaccine.

Is there special timing for the vaccines in people with auto-immune disorders?

- Sometimes vaccines are timed around immune medications to make the vaccine more effective. Sometimes medications are held until after a vaccination. The timing decision balances the risk of a disease flare with the risk of the vaccine working less well.
- For influenza, it is generally NOT recommended to hold either the vaccine or the disease modifying medication. For COVID vaccine, the same is true (so far).
- As always, talk to your physician.

Summary

COVID vaccines prevent COVID infection. Patients with auto-immune disorders are at higher risk for severe COVID-19 disease. Partial protection against COVID is better than no protection. Talk with your doctor about offering all adults COVID-19 vaccination.

Additional Resource:

creakyjoints.org – This website has information about all kinds of arthritis, COVID-19, and other related topics.

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Reading Medical Studies: Why Isn't Every Study Used to Guide Medical Treatment?

Every healthcare provider should only give care if there is proof that it works and won't harm the patient. This is called Evidence Based Medicine. But not all evidence is equal. Here are examples of different types of studies:

Descriptive studies:

Describe what was seen. Something happens to a patient or small group of patients. Someone notices and writes a report to call attention to it and to get researchers to think about it. Just because two events appear connected does NOT mean one caused the other. These studies don't have a comparison group. *Example:* What happened to the first 100 COVID-19 patients hospitalized in China.

Analytic studies: Try to answer a question. They include:

Cross sectional studies: Researchers choose a large group of people and look at one question to find differences. *Example:* A telephone survey asking, "Did you have any health problems after you took this medicine?"

Case control studies: Researchers look at two groups of people: one group has a disease and one group doesn't. They compare what happened to these people in the past to try to explain the difference in who got the disease. *Example:* Compare and contrast the people who got COVID-19 with those who didn't.

Cohort studies: Researchers compare two groups of people with the same exposure. *Example:* Both groups attended the same party. Who got COVID and who didn't?

Experimental studies: Examining cause and effect. Good experimental studies have the following features:

- Sort people randomly – a particular person has an equal chance of being in either group.
- Include a treatment group and a non-treatment "placebo" group.
- Neither the patient nor the researchers know who is in what group.
- Expert peer researchers look at data and conclusions before they are published.

About Bias

All studies may have bias, which means the results may not be completely reliable. There are many types of bias, including:

- **Confirmation bias** – We like to hear what we believe is true; we may believe those results and not the results that are contrary to our beliefs.
- **Detection bias** – People with good access to care or tests are more likely to be diagnosed and included in studies.
- **Response bias** – People are more likely to sign up for a study if they have certain characteristics or illnesses.
- **Recall bias** – None of us remember things very well. People with illnesses may remember past events more or less than those who are healthy.
- **Publication bias** – Studies that don't show important results don't get published; however, showing that a medicine or exercise did nothing at all is equally important to patient care.

What does this all mean for COVID-19 studies?

Many early COVID-19 studies were descriptive and were published quickly without peer review. As more research has been done, some findings have changed. Our understanding of COVID and safe treatment will likely improve over time with more controlled and experimental studies.

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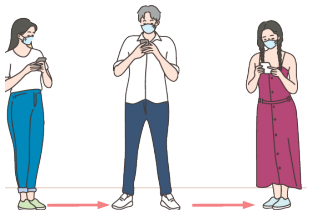
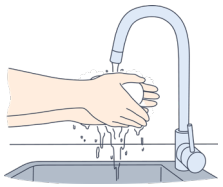
Vaccine Question

Why do I need to still wear a mask, wash my hands, and practice social distancing if I've had two doses of COVID-19 Vaccine?

Answer: The Vaccine is very good at preventing disease. It is even better at preventing serious disease and hospitalization. This is called *Effective Immunity*. We do not know yet if the vaccine is good at preventing getting the virus, called *Sterilizing Immunity*.



A vaccinated person might get the virus in their nose, but not get sick. Then, when that person sees an unimmunized friend and breathes, coughs or sneezes, they might give their friend the virus.



Until there is 70 to 80 percent immunity in our community and nation, we all need to continue to wear masks, practice social distancing, and wash our hands. (Don't stop the hand washing....ever!)

CHA/P on Facebook

Community Health Aide/Practitioner Facebook page:

www.facebook.com/groups/AlaskaCommunityHealthAidesPractitioners

Thanks to:

Thanks to Dr. Elizabeth Ferucci for her discussion about vaccines in people with immune problems. Thanks also to Dr. Coleman Cutchins for his presentation on Reading Medical Studies and to the Alaska Department of Health and Social Services Coronavirus Response Team.

Covid by the Numbers

- **Alaska cases as of January 22, 2020:** 52,282
- **US cases as of January 22, 2020:** 24.7 million
- **Alaska average daily case rate:** 27.7 **cases per day, per 100,000 people.** This is a decrease from several weeks ago but numbers in some regions are still much higher.
- **More information at** Coronavirus.dhss.alaska.gov

CHA/Ps: Earn CE Credit

You can earn CE credit for attending the COVID-19 CHAP Weekly Update zoom meetings every Tuesday, 12pm to 1pm.

Each week has a corrresponding CE certificate found online at: https://anthc.remote-learner.net

Also, check out these available Covid-19 CE courses:

COVID-19 Vaccines - 1 CE

BinaxNOW™ COVID-19 Ag Card - 1 CE

COVID-19 (Coronavirus) General Information and Testing - 2 CE

SAVE THE DATE

January 26, 2021
Marcia Anderson from Alaska Native Tribal Health Consortium Community Health Services will talk about food security in rural Alaska and community gardening.

February 5, 2021
Dr. Liz Ohlsen will talk about school and sports and COVID – what's safe, what to think about and what's in the future.

Let us know what you think! aka-CHAPCOVID-19weeklyupdates@anthc.org

Send questions for presenters and each other, and suggest topics for discussion.

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM