COVID Vaccination Your questions on allergy answered

Dr Shuaib Nasser

Department of Allergy, Cambridge University Hospitals NHS Foundation Trust, Cambridge

I am anxious about vaccination. Can I have antihistamines beforehand?

If your symptoms could be helped by taking an antihistamine e.g. urticaria, then it would be reasonable to take 20mg Cetirizine (2 tablets) 1 hour before their vaccination. However, if there is no such history then antihistamines will not help.

I am worried about reacting to the vaccine. Can I be tested for allergy to the vaccine and for allergy to PEG?

- Allergy to these excipients may present as a history of anaphylaxis (not intolerance or rash) to
 multiple unrelated drugs (containing PEG) and in such cases your GP will seek advice from your
 local Allergy Service.
- If you are currently taking or have recently tolerated medications that contain PEG, then it is unlikely that you are allergic to PEG.
- There is no indication for allergy testing to the vaccines or their ingredients unless you have a previous history suggestive of severe allergic reactions to any of these.

I have multiple drug allergies - which COVID vaccine can I have?

- If you have a history of anaphylaxis within minutes of taking different drugs containing polyethylene glycol, then you should avoid the Pfizer/Moderna vaccines. However, If the reactions do not start within 1-2 hours of taking the medication or non-allergic (such as dizziness, headaches etc), then this is not a contraindication to ANY of the COVID vaccines.
- The Astra Zeneca vaccine is no longer available.
- If you have a confirmed polyethylene glycol allergy then the Novovax vaccine (Nuvaxovid), a non mRNA vaccine will be available however its use is restricted to patients with a known severe anaphylaxis to an mRNA vaccine or one of its known constituents such as PEG.

I have a history of chronic urticaria/angioedema; do I need to take any precautions?

- Your urticaria/angioedema should be controlled, and you should remain on regular treatment maintaining control. If control is poor adjust the medication well ahead of vaccination.
- If the urticaria is in remission and you are not on antihistamines, you may wish to consider antihistamine cover. Pre-dose with antihistamine e.g., Cetirizine 20 mg one hour before vaccination and continue with cetirizine 10 mg twice daily for 3 days or longer if required.

I have a history of idiopathic anaphylaxis. What should I do?

- Idiopathic anaphylaxis is a diagnosis of exclusion by an allergist. This means that you experience anaphylaxis without an identifiable trigger.
- If this diagnosis has been confirmed by an allergist, then there is no contraindication to any of the Covid vaccines.
- However, if the episodes of anaphylaxis occur within minutes of taking drugs containing
 polyethylene glycol and you have not been evaluated by an allergist, then you should be reviewed
 prior to vaccination.

I developed severe swelling of my arm after the influenza vaccine. Which vaccine can I have?

 You can receive any COVID vaccine but should pre-dose with cetirizine 20mg one hour before vaccination.

Reactions to Previous Vaccinations

I developed a rash/other mild/moderate reaction after an influenza vaccine several years ago. Which vaccine can I have?

- You can have either the Pfizer or Moderna vaccines.
- We would recommend 20mg Cetirizine (2 tablets) one hour prior to vaccination and then continue with Cetirizine 10mg twice daily for 3 days or longer depending on your clinical history e.g., if the rash persisted for a week, then you should take twice daily Cetirizine 10mg for one week

I collapsed after my influenza vaccine and was taken to hospital. Can I be seen in the allergy clinic and have my first COVID vaccination in hospital?

- That depends on the cause of the collapse. If the collapse was due to a non-allergic cause (e.g., vaso-vagal), then Covid-19 vaccination can proceed in a community setting using standard protocols.
- If there were objective features of an allergic reaction such as anaphylaxis (e.g., immediate onset urticaria, angioedema, hypotension, shortness of breath) then you should find out which Influenza vaccine was received as this will allow investigation of the cause.
- If you have had medication since the episode containing Polysorbate 80 as an excipient, then
 allergy to Polysorbate 80 can be excluded and you can have any of the Covid vaccines in the
 community.
- If the collapse was after an influenza vaccine containing Polysorbate 80 or the name of the influenza vaccine is unknown, then the Pfizer and Moderna mRNA vaccines can administered as they do not contain Polysorbate 80.
- If concern remains, then COVID vaccination should be undertaken in a medically supervised setting if local facilities allow.

I collapsed after receiving the DTP/MMR/Pneumococcal/Hepatitis B vaccine. Can I have a COVID vaccine in the community?

If anaphylaxis is strongly suspected then please follow the advice as follows:

Diphtheria, Typhoid and Pertussis Vaccinations:

<u>Infanrix hexa</u> (powder and suspension for injection) (DTaP/IPV/Hib/HepB) and <u>Infanrix-IPV+Hib</u> (DTaP/IPV/Hib) vaccines do not contain Polysorbate 80 or Polyethylene Glycol. You can receive any COVID vaccine.

Repevax (dTaP/IPV), Boostrix-IPV (dTaP/IPV) and Vaxelis (DTaP/IPV/Hib/HepB) contain Polysorbate 80. If you have subsequently received any drugs or vaccines containing Polysorbate 80 then you can have any of the current COVID vaccines. But if you have not, then you should be referred to the high-risk hub for vaccination with Pfizer/Moderna vaccine.

MMR:

<u>MMRVaxPro</u> and <u>Priorix</u>, do not contain Polysorbate 80 or Polyethylene Glycol. You can receive any COVID vaccine.

Hepatitis B Vaccine:

<u>Engerix</u>, <u>Hendrix</u>, <u>HBVaxPRO</u> do not contain Polysorbate 80 or Polyethylene Glycol. You can receive any COVID vaccine.

Pneumococcal:

Pneumococcal Polysaccharide Vaccine (MSD), <u>Pneumovax 23</u>, does not contain Polysorbate 80 or Polyethylene Glycol. You can receive any COVID vaccine.

<u>Prevenar 13</u>: contains Polysorbate 80. If you have subsequently received any drugs or vaccines containing Polysorbate 80 then you can have any of the current COVID vaccines. But if you have not, then you should be referred to the high-risk hub for vaccination with Pfizer/Moderna vaccine.

After COVID vaccination

I began to cough and developed throat tightness shortly after COVID vaccination. What should I do next?

- If there were no other signs of allergic reaction (rash, visible swelling) and the cough settled either spontaneously or after oral antihistamine (or even a single dose of adrenaline) then you can have the second dose of the same vaccine after pre-dosing with antihistamine continued for 3 days or longer if required.
- If however there were objective signs of an allergic reaction (urticaria/angioedema) and the cough was likely due to anaphylaxis then you should be referred for further investigation.

I felt short of breath shortly after their COVID vaccination but did not need hospital admission. What should I do next?

- If there were no other signs of allergic reaction (rash, visible swelling) and the SOB settled either spontaneously or after oral antihistamine (or even a single dose of adrenaline) then you can have the second dose of the same vaccine after pre-dosing with antihistamine continued for 3 days or longer if required.
- If there were objective signs of an allergic reaction (urticaria/angioedema) and the shortness of breath was likely due to anaphylaxis, then you should be referred for further investigation.

I developed a large area of swelling and itching at the site of COVID vaccination. It took a week to resolve. Can I have allergy testing or receive my next vaccination in hospital?

Large local reactions with delayed swelling and redness and itching are rare to both Pfizer and AZ
vaccines but are described more frequently after the first dose of the Moderna vaccine. These
can last for more than a week.

- Treatment is symptomatic i.e., antihistamine for itch (e.g., cetirizine), Paracetamol and ice packs for discomfort. You can still get the second dose in the community, but allergy testing and special precautions are not needed.
- You can receive any COVID vaccine.

I developed tingling of my mouth, tongue and skin after COVID vaccination. About one hour later I developed mild swelling of the lip which settled with an antihistamine. What should I do next?

- Consider pre-dosing with cetirizine 20mg, one hour before your next vaccination.
- You should be observed for 30-60 min after the vaccine. You can receive any COVID vaccine

•

I developed urticaria / angioedema the day after COVID vaccination. It has lasted for 2 weeks. Can I be tested or have my next vaccine in hospital?

- Delayed reactions to the Covid vaccines are not due to allergy but rather due to the immunogenic effect of vaccination. Therefore, testing for allergy is unhelpful and unnecessary.
- You may develop a similar reaction after the next dose and therefore pre-dosing with antihistamine such as cetirizine is recommended for example with cetirizine 20mg one hour before and cetirizine 10mg twice daily for 2 weeks after vaccination.
- You can receive any COVID vaccine.

Other Allergies:

I am allergic to wasp/bee stings, can I have my Covid vaccination in hospital?

Allergy to insect venom is not a risk factor for anaphylaxis to any of the vaccines. The vaccines
can be given in the community and no special precautions are needed.

I have allergic rhinitis, asthma, eczema and food allergies; which is the best vaccine for me?

• You can receive any COVID vaccine.

I am allergic to alcohol; can I have the Covid vaccine?

- Allergy to alcohol is rare and not usually to the alcohol itself and in most patients some types of alcohol are tolerated. The Pfizer and Moderna vaccines do not contain alcohol.
- You may have the Pfizer/Moderna vaccine. However, it is NOT likely that the small amount of alcohol in any other vaccine would cause a problem.