

# Five things to know about the AstraZeneca/Oxford vaccine

March 11 2021

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Cheap and easy to store, the AstraZeneca/Oxford vaccine has given a significant boost to the global fight against coronavirus but also been hit by controversy.

Here are five facts about the much-anticipated vaccine.

## **Practicality**

The AstraZeneca/Oxford vaccine has the major advantages of being inexpensive, costing about £2.50 (\$3.40, 2.75 euros) per dose, and easy to store.

It can be kept at normal refrigerator temperatures of between two and eight degrees Celsius (36-46 Fahrenheit), making it ideal for large-scale vaccination programs, with both India and Argentina recently approving its use.

By contrast rival jabs like the Moderna vaccine needs to be stored at minus 20C, while the Pfizer/BioNTech product must be kept at minus 70C.

The US Food and Drug Administration said last month that frozen vials of the Pfizer jab may be stored at temperatures commonly found in pharmaceutical freezers for up to two weeks.

## **Suspected blood clots**

Denmark said on Thursday it would suspend use of the AstraZeneca vaccine as precautionary measure over fears of blood clots of in vaccinated people.

The country's national health agency emphasized it was not yet possible to conclude a link between the vaccine and clots.

An AstraZeneca spokesperson said the vaccine had been "extensively studied in Phase III clinical trials".

They added "peer-reviewed data confirms the vaccine has been generally well tolerated".

Austria announced on Monday it had stopped administering a batch of vaccine produced by the British laboratory, after the death of a 49-year-old nurse who succumbed to "severe bleeding disorders" days after receiving it.

Estonia, Lithuania, Latvia and Luxembourg suspended vaccinations with doses from the same batch, which has been delivered to 17 countries and included one million vaccines.

## **Delays in delivery**

The vaccine was first approved for use in the general population in Britain, which ordered 100 million doses of the jab.

In the EU, delays to delivery have led to strong criticism of the Anglo-Swedish firm as stock continued to reach Britain's vaccine programme.

AstraZeneca announced in January it could only deliver one third of the 120 million doses initially promised to the 27 EU member states in the first quarter.

Tensions boiled over into diplomatic relations in the same month when the EU invoked a Brexit deal protocol over export controls on [coronavirus](#) vaccines.

It quickly retreated from the move following protests from London and Dublin.

More recently, Italy blocked the export of a 250,000 dose shipment of AstraZeneca vaccine to Australia, citing "persistent shortage" and

"delays in supply".

European Commission President Ursula von der Leyen warned that other countries could block exports. She said that AstraZeneca had delivered less than 10 percent of the doses ordered between December and March.

## **Chimpanzees**

The vaccine is "virus-vectored", meaning it is a version of a virus that normally infects chimpanzees and has been modified with a portion of the Covid-19 coronavirus called the "spike protein" to fire the immune system.

Once in [human cells](#), the vaccine should help stimulate the production of antibodies that recognise the virus.

The vaccine is "safe and effective", according to data published by The Lancet medical journal on December 8, with only one of the of the 23,754 volunteers who participated in the trials experiencing "possibly-related severe side effects".

This was a case of a rare neurological condition, transverse myelitis, that forced the temporary suspension of trials.

## **Result confusion**

The British laboratory announced in interim findings in November that its vaccine was on average 70 percent effective, compared with more than 90 percent for Pfizer/BioNTech and Moderna.

The efficacy of the AstraZeneca/Oxford vaccine was 90 percent for volunteers who first received only a half dose and then a full dose one

month later, but only 62 percent for those in another group who were vaccinated with two full doses one month apart.

The injection of a half dose was conducted by accident, raising criticism over the robustness of the results and prompting the company to conduct additional studies.

The [vaccine](#)'s efficacy in those over 65 has also been questioned in Europe due to a lack of data and before further studies were completed.

Nations such as Germany and Italy have finally authorized it for the age group in hopes of accelerating their vaccination campaigns.

A study conducted by health authorities in England has shown protection of between 60 percent and 73 percent against Covid symptoms in people over 70 years old, with a single dose.

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Citation: Five things to know about the AstraZeneca/Oxford vaccine (2021, March 11) retrieved 6 May 2024 from <https://medicalxpress.com/news/2021-03-astrazeneca-oxford-vaccine.html>

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