All about Covid-19 vaccines

Infectious diseases specialist Dr Piotr Chlebicki addresses common concerns about the approved vaccines

Above:
The approved Covid-19 vaccines have to be taken in two doses and do not contain any live virus cells or DNA.
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Why are the vaccines administered in two doses?
The first dose is to prime the immune system. The second dose is an enhancer or booster dose for when the immune system learns how to fight the virus.

If a person has recovered from Covid-19, are they considered immune?
For the first several months after infection, the majority of patients appear to have very good immunity. However, data shows that after some time, the antibody levels for some may drop. It is still uncertain, but we will know more over time.

Why are Covid-19 vaccines not recommended for pregnant women, severely immunocompromised persons and children under 16?
These groups of people were excluded from clinical trials, so there is no real proof the vaccines will work for them.

This does not mean the vaccine is harmful to them either. It is quite likely that within the next few months, when results of more studies come out, these subgroups will be able to get the vaccine.

Why do the approved vaccines not work in a small percentage of people?
There is a small proportion of people who do not respond to vaccines. These are usually people with certain medical conditions, who have severely weakened immune systems unable to mount an appropriate defense response.

There is also an issue with how cases are counted as clinical trials. Some trials count symptomatic infections only, while other trials attempt to look for asymptomatic transmission. Vaccines usually prevent severe and symptomatic infections and if counted that way, efficacy will be very high. If asymptomatic infections are also counted, then efficacy may appear lower.

These are based on small sample groups, and not representative of large populations.

Do the new mutated strains of Covid-19 pose a threat to those who have already been infected or vaccinated?
The two most worrying strains are from South Africa and Brazil. There are some signals that even if you have had Covid-19, you could still get infected by either.

A study of the Amazon region of Brazil showed that there is a major second wave underway even though over 70 per cent of the population had already contracted Covid-19. This is a warning that we may see new strains with different properties.

It has been said that some vaccines can alter DNA. What are the risks involved?
The approved vaccines are both mRNA (messenger RNA) vaccines. RNA from these vaccines cannot build itself into DNA. There are no live virus cells or DNA present, so there is no chance the vaccines can be incorporated in our DNA.

What other advice can you share about Covid-19 or the vaccination?
The supply of vaccines is limited and some groups of people – the elderly, those with serious medical conditions and healthcare workers – will benefit more from being vaccinated earlier. Meanwhile, be patient and continue to observe good hygiene, practise social distancing and wear a mask.

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