Pfizer’s COVID vaccine- BNT162b2

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In news

Recently, Pfizer has reported that its vaccine, BNT162b2, has been more than 90 per cent effective in late-stage trials

ABNT162b2 vaccine and How does it work?

- This vaccine was developed using mRNA technology
- It makes use of the messenger RNA molecules that tell cells what proteins to build.
- The mRNA, in this case, is coded to tell the cells to recreate the spike protein of the novel coronavirus.

How does it work?

Once the mRNA is injected into the body, the cells will use its instructions, creating copies of the spike protein, which is in return expected to prompt the immune cells to create antibodies to fight it.

How is it different from other vaccines?

Unlike several other vaccine candidates, mRNA vaccines are synthetically developed – they don’t need the virus to be cultivated and replicated, just the code for the most crucial part that the body’s immune system is to target. Another advantage is that they can be manufactured at a large scale in large vats called bioreactors.

Difficulties in application of the vaccine in India

There are few hurdles in application of the vaccine, they are;

- The firms have so far inked deals for hundreds of millions of doses of the vaccine with countries like the

US, UK, Japan and the European Union region, but not with India.

- Though the Indian government had held an “initial meeting” with representatives of Pfizer’s Indian subsidiary in late August after early phase 1 data of the vaccine had come out, there has been no major movement on that front since.
- The launch of this Covid-19 vaccine in India would depend on whether Pfizer and BioNTech, either on their own or through a partnership with another Indian vaccine firm
- As per India’s regulatory requirements (Central Drugs Standard Control Organisation), a vaccine would have to undergo local trials in the country before it can receive an approval for a launch.