Oxford vaccine- AZD1222

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In news

The United Kingdom approved the Oxford vaccine recently

About Oxford vaccine

- The Oxford-AstraZeneca vaccine has been approved for use in the UK
- AZD1222, also known as ChAdOx1 nCoV-19, is a COVID-19 vaccine developed by Oxford University and AstraZeneca given by intramuscular injection, using as a vector the modified chimpanzee adenovirus ChAdOx1.
- The AZD1222 vaccine is a replication-deficient simian adenovirus vector, containing the full-length codon-optimized coding sequence of SARS-CoV-2 spike protein along with a tissue plasminogen activator (tPA) leader sequence.
- The researchers used the SARS-CoV-2 genome that had been sequenced in Wuhan
- Unlike the Pfizer and Moderna vaccines, the 'Oxford vaccine' doesn't require sub-zero refrigeration and is reportedly more conducive to be distributed in India.
- AstraZeneca aims to supply millions of doses in the first quarter as part of an agreement with the government to supply up to 100 million doses in total.
- Both AstraZeneca and Pfizer have been approved in the U.K. and the U.S. respectively after they publicised data from their ongoing phase-3 trials.
- The Pfizer-BioNTech jab's trials showed two full doses were 95% effective at preventing infection, while the Oxford-AstraZeneca vaccine showed 62% effectiveness – although even in cases where people were infected, there were no cases of serious illness needing hospital treatment.

- Oxford-AstraZeneca vaccine’s trials also showed that when people were given a half dose then a full dose, effectiveness hit 90%.
- It uses a chimpanzee viral vector based on a weakened version of a common cold virus (adenovirus) that causes infections in chimpanzees and contains the genetic material of the SARS-CoV-2 virus spike protein

Significance of approval for India

- This is significant for India, as the Pune-based Serum Institute of India (SII) has tied up with AstraZeneca to deploy the vaccine in the country.
- After the recent approval, the country’s drug regulator has said that it reviewed an application by the SII for ‘emergency use authorization (EUA).