Vaccination for Children Aged 12 and Under

Why in news?

India has been rolling out Covid-19 vaccines for children aged 12 and under in a phased manner based on scientific and epidemiological evidence.

What is the significance of rolling out vaccines for young children?

- As children have returned to school, vaccination will play a key role in protecting them.
- In the U.S., the Centers for Disease Control and Prevention (CDC) notes that children aged 5-12 are most frequently affected by multisystem inflammatory syndrome in children (MIS-C), a condition associated with Covid-19.
- As more children under 12 years old get vaccinated, CDC will be able to analyze and share those data.

What is the current authorisation about?

- The Central Drugs Standard Control Organization (CDSCO) is the Central Drug Authority for discharging functions assigned to the Central Government under the Drugs and Cosmetics Act.
- The Drug Controller General of India (DCGI) is the head of the CDSCO in India.
- Under the Drugs and Cosmetics Act, CDSCO is responsible for
    - approval of drugs
    - conduct of clinical trials
    - laying down the standards for drugs
    - control over the quality of imported drugs in the country
- Recently, the DCGI has granted emergency use authorisation (EUA) to two Covid-19 vaccines for children.
- The vaccines include
    - Bharat Biotech's Covaxin for the age group 6-12
    - Biological E's Corbevax for the age group 5-12

- The regulatory approval and data on the vaccines will be placed before three government expert bodies.
    - The National Technical Advisory Group on Immunisation (NTAGI) – It provides guidance to the government on vaccination by undertaking technical reviews of scientific evidence
    - The COVID-19 Working Group and Standing Technical Sub-Committee
    - The National Expert Group on Vaccine Administration for COVID-19 (NEGVAC) – It will make a final recommendation to the Health Ministry.

EUA is a mechanism to facilitate the availability and use of medical countermeasures (unapproved medical products) in an emergency to diagnose, treat, or prevent serious, life-threatening diseases or conditions.

What is the efficacy and safety profile of these vaccines?

- **Covaxin**- Covaxin is India's first indigenous COVID-19 vaccine developed using **Whole-Virion Inactivated Vero Cell** derived platform technology.
- Inactivated vaccines contain dead virus, incapable of infecting people but still able to instruct the immune system to mount a defensive reaction against an infection.
- Bharat Biotech has said that neutralising antibodies in children of 2-18 year age group were 1.7 times higher than in adults.
- Covaxin exhibits robust immune responses in children with 2 doses and 6 months follow up.
- **Corbevax**- Corbevax is a "recombinant protein sub-unit" vaccine, which means it is made up of a specific part of SARS-CoV-2 (the spike protein on the virus's surface).
- The body is expected to develop an immune response against the injected spike protein and if the real virus attempts to infect, the body has an immune response ready making it unlikely for becoming seriously ill.
- The company Biological E initiated the study in October 2021 (which is ongoing), and has said that the vaccine is safe and immunogenic.

The Zydus Cadila DNA vaccine has been approved for children aged 12 and above in India. In the US, Pfizer/BioNtech's mRNA vaccine is being used for persons aged 5 years and above.

References

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