



Pneumococcal Disease

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Context : Reports suggest that Pneumococcal disease is the major contributor under-five mortality rate worldwide.



Background : Pune-based Serum

Institute of India (SII) unveiled India's first indigenously developed pneumococcal vaccine. The world's largest vaccine manufacturer by doses, SII is also the maker of Covishield, the Indian version of the AstraZeneca-Oxford coronavirus vaccine.

Pneumosil Vaccine

- SII's pneumococcal vaccine, Pneumosil, was developed through a collaboration spanning over a decade with the health organisation PATH and the Bill and Melinda Gates Foundation.
- The vaccine was launched by Union Health Minister Dr Harsh Vardhan.
- This is a significant milestone for the country's public healthcare which will ensure that children are protected better against pneumococcal disease with an effective vaccine.
- Dr Harsh Vardhan said at the virtual launch function that the Serum Institute's vaccines are used in 170 countries and every third child in the world is immunised with one of its vaccines.
- The vaccine targets the pneumococcal bacterium, which causes pneumonia and other serious life-threatening diseases such as meningitis and sepsis, and is estimated to cause nearly four lakh deaths in children under five years of age each year worldwide.

- Pneumococcal disease is a significant contributor under-five mortality rate worldwide.

Highlights

- In view of its widespread fatality, the World Health Organization in 2018 recommended the inclusion of the pneumococcal conjugate vaccine (PCV) in routine childhood immunisation programmes in all countries.
- Serum's first indigenous PCV will be available in the market at an affordable price in single dose, vial and prefilled syringe and multidose (vial) presentations.
- While PCVs have helped reduce pneumococcal deaths, they are difficult for many countries to afford.
- Pneumosil addresses the need for a more affordable option. Pneumosil will be available at an affordable competitive price. The unique feature of the WHO pre-qualified PCV is its composition which is specially tailored to the serotype of the bacterium, *S pneumoniae*, in India and other regions of the world.
- Pneumosil has been extensively evaluated in five randomised controlled clinical trials and has demonstrated comparable safety and immunogenicity against licensed pneumococcal vaccines across diverse populations of India and Africa, where Pneumosil was administered to adults, toddlers and infants using different vaccination schedules.
- Based on the trials, Pneumosil was licensed by the Drugs Controller General (India) in July 2020.

Conclusion

The vaccine also makes SII the world's third supplier of PCVs under the pneumococcal Advance Market Commitment, and the first developing country vaccine manufacturer to access the global PCV market.

Connecting the Article

Question for Prelims : With reference to pneumococcal vaccine, Pneumosil, which of the following statements is/are correct?

1. Pneumococcal disease is a significant contributor under-five mortality rate worldwide.
2. India unveiled first indigenously developed pneumococcal vaccine.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

(d) Neither 1 nor 2

Question for Mains : Pneumococcal is a significant milestone for the country's public healthcare which will ensure that children are protected better against pneumococcal disease with an effective vaccine. Explain