

Bharat Biotech's Chikungunya vaccine

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In news– A multi-country phase II/III clinical trial of Bharat Biotech's chikungunya vaccine candidate BBV87 by the International Vaccine Institute (IVI) started in Costa Rica.

About the vaccine

- The two-dose Chikungunya vaccine is **inactivated** whole virion jab similar to Covaxin.
- Inactivated virions technology has a safety profile which potentially makes this vaccine accessible to special populations, such as immune-compromised and pregnant women.
- **BBV87 is an inactivated whole virion vaccine** based on a strain derived from an East, Central, South African (ECSA) genotype.
- The **phase I clinical trials** of the vaccine candidate were **conducted in India**.
- **The vaccine candidate had elicited an "optimum immune response" in the first phase** of the clinical trials after completion of standard pre-trial clinical studies.
- Its phase II/III **randomized, controlled trial of the adjuvanted Chikungunya vaccine candidate for adults will be held at sites across five countries** – Costa Rica, Panama, Colombia, Thailand and Guatemala.
- Bharat Biotech's vaccine candidate is an ingenious, well-researched vaccine.

A collaborative effort

- **Bharat Biotech's Chikungunya vaccine candidate was developed in partnership with the International Vaccine Institute (IVI)**, an initiative of the United Nations Development Programme (UNDP), as **part of The Global**

Chikungunya Vaccine Clinical Development Program (GCCDP).

- **GCCD seeks to develop and manufacture an affordable chikungunya vaccine** with the aim of achieving WHO prequalification to enable its distribution in low- and middle-income countries.
- A multi-country study on the efficacy of the **vaccine candidate was funded by the Coalition for Epidemic Preparedness Innovations (CEPI)** with support from the Ind-CEPI mission of the Department of Biotechnology, Government of India.

About Chikungunya

- It is an **RNA virus that belongs to the alphavirus genus of the family Togaviridae.**
- The **name “chikungunya” derives from a word in the Kimakonde language**, meaning “to become contorted”, and describes the stooped appearance of sufferers with joint pain (arthralgia).
- It was **first identified in Tanzania in 1952.**
- **Chikungunya is a viral disease transmitted to humans by the bite of infected female Aedes mosquitoes.**
- **Symptoms** of the virus include severe joint pain, muscle pain, headache, nausea, fatigue and rashes.
- Joint pain associated with chikungunya is often debilitating, and can vary in duration.
- **There is currently no vaccine** or specific drug against the virus.
- The treatment is focused on relieving the disease symptoms.
- **The disease shares some clinical signs with dengue and Zika**, and can be misdiagnosed in areas where they are common.
- The disease mostly occurs in Africa, Asia and the Indian subcontinent. However a major outbreak in 2015 affected several countries of the Region of the Americas, and

sporadic outbreaks are seen elsewhere.

International Vaccine Institute (IVI)

- It is a **nonprofit International Organization established in 1997 as an initiative of the United Nations Development Programme (UNDP)**.
- It is among the few organizations in the world dedicated to vaccines and vaccination for global health.
- **Mission:** Discover, develop and deliver safe, effective and affordable vaccines for global public health.
- **IVI is headquartered in Seoul** and hosted by the Republic of Korea with 36 member countries and the WHO on its treaty.