

ORAL CHOLERA VACCINE: SCIENCE & TECHNOLOGY

NEWS: Bharat Biotech's cholera vaccine successfully completes Phase-III trials

WHAT'S IN THE NEWS?

Bharat Biotech's oral cholera vaccine Hillchol has successfully completed Phase III trials, showing efficacy against both Ogawa and Inaba serotypes with a strong safety profile. Its simplified single-strain design makes it cost-effective and suitable for mass use in low- and middle-income countries.

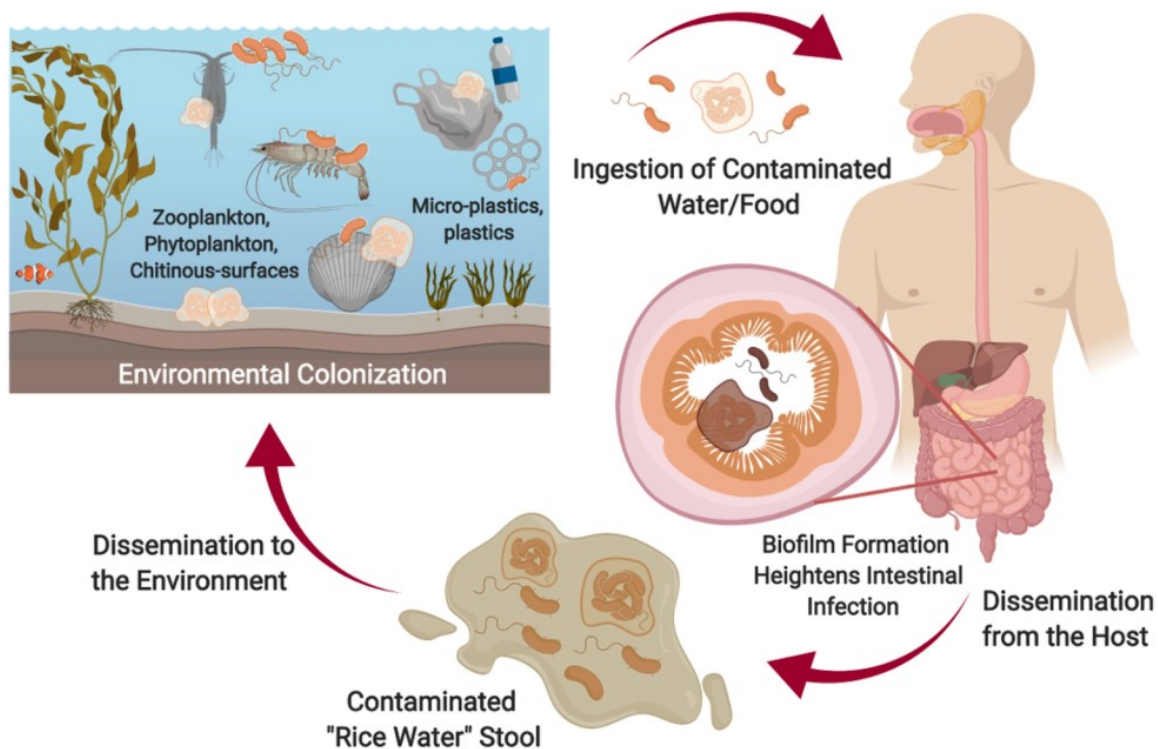
Context: Bharat Biotech's Oral Cholera Vaccine – Hillchol

- Bharat Biotech has successfully completed **Phase III clinical trials** for its oral cholera vaccine, **Hillchol**.
- The vaccine has shown **efficacy against both Ogawa and Inaba serotypes** of *Vibrio cholerae* *O1* – the major strains responsible for global cholera outbreaks.

About Cholera

- **Causative Agent:** Cholera is an **acute diarrhoeal infection** caused by the bacterium *Vibrio cholerae*.
- **Transmission:** The disease spreads through **ingestion of food or water contaminated** with fecal matter containing the bacteria.
- **Serotypes:** The major disease-causing serotypes of *Vibrio cholerae* *O1* are:
 - **Ogawa**
 - **Inaba**
- **Symptoms:**
 - Severe watery diarrhoea (often described as “rice-water stools”)
 - Vomiting
 - Rapid dehydration
- **Highly Contagious:**
 - Can spread rapidly in **crowded areas with poor sanitation**, such as refugee camps or slums.
 - High potential for **epidemic outbreaks**.
- **Global Impact:**
 - Causes **approximately 2.86 million cases** annually.
 - Results in around **95,000 deaths globally** every year.
- **Treatment Options:**

- **Oral Rehydration Therapy (ORT)** to replace lost fluids and electrolytes.
- **Intravenous fluids** in severe cases.
- **Antibiotics** may be used to shorten illness duration and reduce severity.



About Hillchol – Bharat Biotech's Oral Cholera Vaccine

- **Vaccine Type:** Oral Cholera Vaccine (OCV).
- **Clinical Trial Success:**
 - Completed **Phase III double-blind, randomized trials**.
 - Proven **non-inferior** to existing licensed cholera vaccines.
 - Effective against **both Ogawa and Inaba serotypes**.
- **Safety Profile:**
 - Found to be **safe across all age groups**.
 - Reported only **mild adverse events**, showing strong tolerability.
- **Technological Features:**
 - Uses a **single, stable O1 Hikojima strain** (a hybrid strain expressing both Ogawa and Inaba antigens).

- This simplifies production, improves consistency, and reduces costs.
- **Significance for Global Health:**
 - Enhances **production efficiency and affordability**.
 - Highly beneficial for **lower- and middle-income countries** that face frequent cholera outbreaks.
 - Could help address the **global demand of nearly 100 million OCV doses per year**.

Conclusion

- Hillchol offers a **promising, cost-effective, and scalable solution** to control cholera globally, especially in endemic regions.
- Its dual-serotype efficacy and strong safety record position it as a **valuable tool in global public health efforts** against cholera.

Source:

<https://economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/bharat-biotechs-cholera-vaccine-successfully-completes-phase-iii-trials/articleshow/121314597.cms?from=mdr>