



WHO Prequalification to R21/Matrix-M Vaccine

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Why in News?

In a significant development in the global fight against [malaria](#), the [World Health Organization \(WHO\)](#) has recently added the [R21/Matrix-M malaria vaccine](#) to its list of prequalified vaccines.

- Developed by Oxford University and manufactured by the **Serum Institute of India**, this vaccine holds promise in **preventing malaria in children**.
- The R21/Matrix-M vaccine became the **second malaria vaccine to achieve WHO prequalification**, the first one was the [RTS, S/AS01 vaccine](#).

What is the Significance of WHO Prequalification?

- WHO prequalification of the R21 vaccine serves as a robust assurance of the **safety and efficacy** of the vaccine.
 - Products that achieve WHO prequalification gain credibility and are more readily accepted in international markets, as WHO applies rigorous international standards to evaluate their safety, effectiveness, and manufacturing compliance.
- WHO prequalification is often a prerequisite for procurement by international organizations, such as the [United Nations Children's Fund \(UNICEF\)](#).
 - It enhances the likelihood of a vaccine being included in **global immunization programs**, ensuring a wider reach.
- WHO prequalification is instrumental in securing **Gavi support**, enabling the implementation of vaccination programs in regions with limited resources.
 - Gavi, the Vaccine Alliance, created in 2000 provides funding support for the deployment of vaccines in developing countries.

What is Malaria?

- **About:**
 - It is a life-threatening **mosquito-borne blood disease** caused by **Plasmodium parasites**. It is preventable and curable.
 - Predominantly found in tropical and subtropical regions of Africa, South America, and Asia.
 - Malaria spreads through infected **female Anopheles mosquito bites**, with parasites multiplying in the liver and subsequently attacking **Red Blood Cells**.
 - Among the five parasite species causing malaria, **Plasmodium falciparum and Plasmodium vivax** present the highest threat to human health.
 - Symptoms of malaria include **fever and flu-like illness**, including shaking chills, headache, muscle aches, and tiredness.
- **Malaria Burden:**
 - Malaria places a particularly high burden on **children in the African region**, where nearly half a million children die from the disease each year.
 - In 2022, there were an estimated **249 million malaria cases in the world** and **6,08,00 malaria deaths across 85 countries**.

▪ **Initiatives to Curb Malaria:**

◦ **Global:**

- [E-2025 initiative.](#)
- [Global Technical Strategy for Malaria 2016–2030.](#)

◦ **India:**

- [National Framework for Malaria Elimination \(NFME\).](#)
- [National Strategic Plan for Malaria Elimination \(2017-22\).](#)
- [The Indian Council of Medical Research \(ICMR\)'s Malaria Elimination Research Alliance-India \(MERA-India\)](#)

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. Widespread resistance of malarial parasite to drugs like chloroquine has prompted attempts to develop a malarial vaccine to combat malaria. Why is it difficult to develop an effective malaria vaccine? (2010)

- (a) Malaria is caused by several species of Plasmodium
- (b) Man does not develop immunity to malaria during natural infection
- (c) Vaccines can be developed only against bacteria
- (d) Man is only an intermediate host and not the definitive host

Ans: (b)

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