

Malaria

Prelims: Current events of national and international importance | Health

Why in news?

Researchers have recently identified two promising new approaches to counteract malaria's growing resistance to medication — one involving a new class of drugs.

- Malaria is a life-threatening, <u>mosquito-borne disease</u> caused by parasites.
- Caused by The *Plasmodium parasite* (mainly P. falciparum, P. vivax, P. ovale, P. malariae, and P. knowlesi).
- **Transmission** It is transmitted to people through the bites of infected *female Anopheles mosquitoes*, through blood transfusions or contaminated needles, etc. (*No direct human-to-human transmission*).
- **Symptoms** Typically include fever, fatigue, and headaches, but severe cases can lead to jaundice, seizures, coma, or death.
- **Higher risk** Infants, children under 5 years, pregnant women and girls, travellers and people with HIV or AIDS.
- Disease burden Malaria cases increased globally to an estimated 263 million cases in 2023, up from 252 million in 2022, with approximately 597,000 deaths (WHO's World Malaria Report 2024).
- It is mainly found in *tropical and subtropical climates* and largest death toll in recent years has been seen in children in sub-Saharan Africa.
- **Prevention** Malaria can be prevented with insect repellent, protective clothing, and preventive medication, and is treatable with antimalarial drugs, especially when caught early.
- Antimalarial drugs available in India Chloroquine, Artemisinin-based combination like Artesunate + Sulfadoxine-Pyrimethamine (SP) and Artemether-Lumefantrine, and Quinine, etc.

Quick Fact

GanLum

- An antimalarial Drug, developed by Switzerland-based Pharma company, Novartis.
- It is a packet of tiny powder-like granules, once daily for three days.
- **Composition** Combines ganaplacide (new molecule) with lumefantrine (existing long-acting drug).
- It is **not yet licensed**, expected rollout in 18 months.
- **Result** Over 97% cure rate, highly effective against mutant malaria parasites & slightly better than standard artemisinin-based therapies.

Single-Dose Four-Drug Combo

- In an effort to offer a one-time treatment, a study in Gabon, West Africa found a single dose of four widely available malaria drugs.
- 4 drugs Artemisinin, pyronaridine, sulfadoxine, and pyrimethamine.
- **Results** 93% parasite clearance after 28 days (vs. 90% for standard 3-day course) and has a potential for single capsule formulation to ease administration.

References

- 1. The Hindu | 2 new malaria treatments
- 2. WHO | Malaria

