

Mosquirix vaccine

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In news- The World Health Organisation (WHO) recently endorsed the world's first malaria vaccine and said that it should be given to children across Africa to curb the spread of the parasitic disease.

About the vaccine-

- RTS,S or Mosquirix is a vaccine developed by **British drugmaker GlaxoSmithKline in Africa by African scientists.**
- This is the first malaria vaccine that has completed the clinical development process, and received a positive scientific opinion from the European Medicines Agency (EMA).
- It is also the first malaria vaccine to be introduced by three national ministries of health through their childhood immunization programmes – Ghana, Kenya, and Malawi.
- It is given to **children aged 6 weeks to 17 months** to help protect against malaria.
- It also **helps protect against infection of the liver with the hepatitis B virus**, but the EMA has warned that the vaccine should not be used only for this purpose.
- It requires up to four doses, and its protection fades after several months.
- It is given as a 0.5 ml injection into a muscle of the thigh or in the muscle around the shoulder (the deltoid).
- The child is given three injections with one month between each injection and the fourth injection is recommended 18 months after the third.
- The active substance in Mosquirix is made up of proteins found on the surface of the **Plasmodium falciparum parasites.**

- When it is administered to a child, the immune system recognises the 'foreign' proteins from the parasite and makes antibodies against them.
- The vaccine's effectiveness at preventing severe cases of malaria in children is only around 30%, but it is the only approved vaccine.

Over the last two decades, 11 countries have been certified by the WHO Director-General as malaria-free: *United Arab Emirates (2007), Morocco (2010), Turkmenistan (2010), Armenia (2011), Sri Lanka (2016), Kyrgyzstan (2016), Paraguay (2018), Uzbekistan (2018), Algeria (2019), Argentina (2019), and El Salvador (2021).*