

Malaria vaccines indicator

Service delivery (feasibility)

Number of doses and timing of administrations

Malaria vaccines are provided in a 4- or 5-dose schedule starting from around 5 months of age. The minimum interval between any dose is 4 weeks, however, to achieve prolonged protection, the fourth dose should be given 6-18 months after the third dose. [1](#), [2](#), [3](#)

To reduce additional delivery burden, WHO recommends aligning the timing of the fourth dose with the timing of other vaccines and, where appropriate, other health interventions administered in the second year of life [1](#), [2](#), [3](#), [4](#). Alternately, the fourth dose may be given just prior to seasonal transmission peaks to optimize vaccine efficacy.

A fifth dose, given the year after the fourth dose, may be considered in areas of highly seasonal transmission where malaria risk remains high during the third year of life or beyond. [1](#), [2](#), [5](#)

Three delivery approaches and schedules are recommended [3](#):

- 1) Age-based: year-round delivery of all four doses;
- 2) Seasonal: delivery of doses 1-3 just before the start of the high transmission season and a seasonal dose (the fourth and fifth doses) provided annually just before the start of the high transmission season;
- 3) Hybrid: age-based delivery of doses 1-3, year-round and, seasonal delivery of the fourth (and

fifth) dose ideally just before the start of the high transmission season.

Although WHO prequalification issued for RTS,S/AS01 and R21/Matrix-M malaria vaccines permits children to receive the first dose from 5 months of age, the RTS,S/AS01 manufacturer's licensure specifies from 6 weeks to 17 months of age. Studies with RTS,S/AS01 have indicated lower efficacy when the first dose is given at 6 weeks; however, the efficacy is unlikely to be reduced substantially if the first dose is given at 4, rather than 5, months of age. ^{1, 6}

Sources

1.

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2.

World Health Organization (2025). WHO guidelines for malaria, 13 August 2025. Geneva: World Health Organization. doi:10.2471/B09514 (<https://www.who.int/publications/i/item/guidelines-for-malaria>, accessed 13 May 2026).

3.

TechNet-21 (2025). Guide for introducing a malaria vaccine into national immunization programmes – final draft (<https://www.technet-21.org/en/resources/guidance/guide-for-introducing-a-malaria-vaccine-into-national-immunization-programmes>, accessed 13 May 2026).

4.

World Health Organization (2025). Meeting of the Strategic Advisory Group of Experts on Immunization, September 2025: conclusions and recommendations, 5 December 2025. Wkly Epidemiol Rec. 100(49):661–700 (<https://iris.who.int/handle/10665/384559>, accessed 13 May 2026).

5.

Hybrid: age-based delivery of doses 1–3, year-round and, seasonal delivery of the fourth (and fifth) dose ideally just before the start of the high transmission season.

6.

GlaxoSmithKline Biologicals SA (2024). Mosquirix powder and suspension for suspension for injection: product leaflet (https://extranet.who.int/prequal/sites/default/files/vwa_vaccine/FVP-P-424_Malaria_2dose_GSK_PL_2024.pdf, accessed 13 May 2026).