

MALARIA:

Definition:

According to World Health Organization:

"Malaria is a life-threatening disease caused by Plasmodium parasites. The parasite pass to people through the bites of female Anopheles mosquitoes."

There are 5 parasite species that can cause malaria, and 2 of them are:

i- P. falciparum

ii- P. vivax

i) P. falciparum:

The most prevalent malaria parasite on the African continent. It is responsible for most of the deaths globally.

ii) P. vivax:

The dominant malaria parasite in most countries out of the Sub-Saharan Africa.

WHO 2024 report:

★ According to World Health Organization 2024 report, in 2023 there were about 263 million malaria cases reported globally and 597000 deaths.

★ 94-95% those cases and deaths

reported in the African Region.

★ The 2025 campaign "Malaria Ends With Us: Reinvest, Reimagine, Reignite". It means progress needs ~~real~~ efforts globally.

Causes:

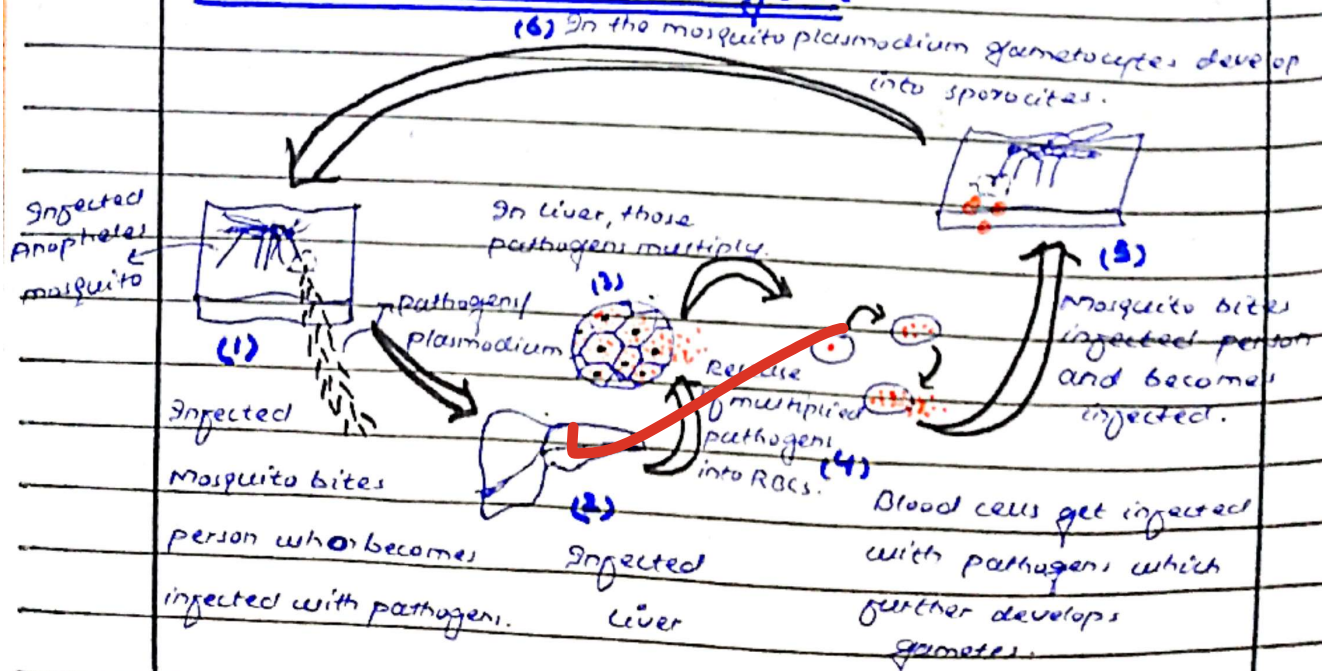
★ The parasite infects humans when an infected female Anopheles mosquito bites a person and injects parasites into the bloodstream.

★ The parasites travel to the liver, multiply, then re-enter the blood stream and infect red blood cells; this cycle causes illness.

Risk factors:

- i- Being in tropical/sub-tropical region.
- ii- Poor mosquito control
- iii- Weak immune systems
- iv- Poor access to prevention and treatment.

Malaria Transmission Cycle:



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Symptoms:

★ It is an acute feverish illness and its symptoms often appear in 10-15 days after bite of mosquito.

★ Common Symptoms:

- | | |
|---------------|----------------------|
| i- Fever | v- Chills |
| ii- Sweating | vi- Headache |
| iii- Vomiting | vii- Fatigue |
| iv- Cough | viii- Abdominal pain |

↳ If these are not treated in 24 hours, lead to severe illness.

★ Severe Symptoms:

- i- Cerebral Malaria
- ii- Severe Anaemia
- iii- Organ Failure
- iv- Coma and Death.

Preventions:

i) Vector Control:

- 1- Use insecticide-treated bed nets when sleeping in malarial-risk regions.
- 2- Indoor residual spraying of insecticides on walls and surfaces where mosquitoes rest.
- 3- Use repellents (DEET, lotions) on exposed skin, especially in evening.
- 4- Wear protective clothing.

ii) Protective chemotherapy/prophylaxis:

1. Taking anti-malarial medication to prevent infection.
2. For travellers to malarial endemic areas, prophylactic antimalarials may be advised.
3. WHO recommends protective measurements for pregnant women in malarial endemic areas.

iii) Vaccination:

- WHO now recommends vaccines for childrens in endemic areas.

iv) Environmental and community measures:

- i. Remove the standing water
- ii. Community education
- iii. Strong health systems for rapid diagnosis.

Treatment:

(i) Early diagnosis and treatment reduces disease and prevents deaths. It also contribute to reducing malaria transmission.

(ii) For *P. falciparum* malaria, artemisinin-based combination therapy (ACT) is used as treatment.

(iii) Drugs and dosing may vary by species, by region, by age, and pregnancy status.

(iv) Ensure full course of treatment is completed.

(v) Anti-malarial medication is used both to treat and prevent malaria.

(vi) There are no licenced vaccines against malaria.

good attempt.

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but the answer is lengthy and might affect your time management,