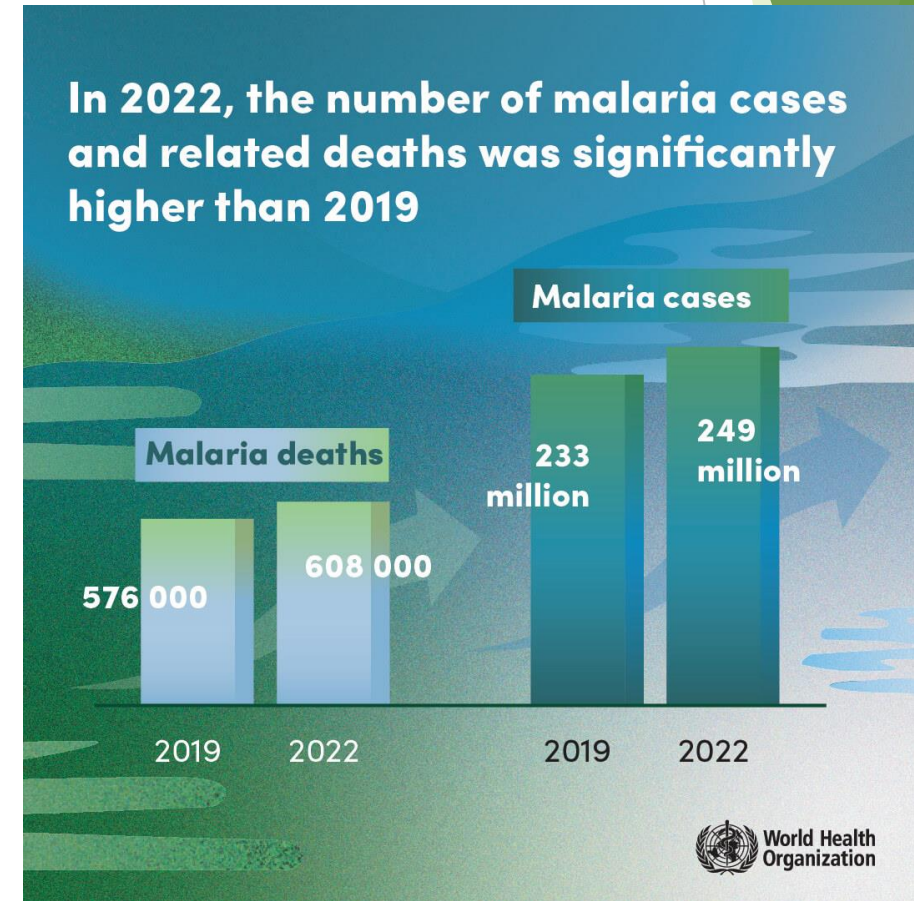


# Malaria: Exploring Its History and the Fight to Get Rid of It Today.

BY:

# RELEVANCE OF TOPIC

- ▶ Malaria remains a significant global health concern, affecting millions annually.
- ▶ Globally, malaria claimed the lives of 435,000 individuals in 2017 and afflicted an estimated 219 million people (Talapko et al., 2019).
- ▶ While in 2022, the cases were at 249 million (Gibson, 2023)



# EPIDEMIOLOGY: MODE OF TRANSMISSION

- ▶ Malaria is transmitted through the bite of infected Anopheles mosquitoes.
- ▶ Blood transfusions and dirty needles or syringes can also spread malaria.
- ▶ The mosquito that bites untreated malaria patients can spread the disease.



(CDC, 2022)

# EPIDEMIOLOGY: POPULATIONS AFFECTED

- ▶ Malaria disproportionately affects vulnerable populations, including children under 5 and pregnant women.
- ▶ Individuals who are immunocompromised, including those with HIV who lack protective immunity
- ▶ Lack of access to healthcare and preventive measures exacerbates the burden.



# EPIDEMIOLOGY: RISK FACTORS



(Spitzen et al., 2017)

- ▶ Malaria infection is most significantly increased by residing in or traveling to regions where the illness is prevalent.
- ▶ Efforts to control malaria include vector control measures such as insecticide-treated bed nets and indoor residual spraying.
- ▶ However, challenges such as insecticide resistance persist.



# SYMPTOMS AND CLINICAL PRESENTATION

- ▶ Symptoms of malaria include fever, chills, sweats, headaches, and body aches.
- ▶ Clinical presentation varies based on the Plasmodium species causing the infection.
- ▶ However, the symptoms are frequently nonspecific and can also be present in other illnesses such as influenza



## Symptoms of Malaria

The early symptoms of malaria include a cold, headache, and a high temperature with chills. In addition, the following are the malaria fever symptoms:

- Feeling very tired
- Difficulty in breathing
- Nausea and vomiting
- Increased bowel moments
- Cough
- Abdominal pain
- Joint pain
- Bloody urine (dark-coloured)
- Seizures
- Yellow discolouration of eyes and skin (Jaundice)

**Malaria symptoms during pregnancy**

- Increase in body temperature
- Headache
- Nausea
- Vomiting
- Muscle pain



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# SYMPTOMS AND CLINICAL PRESENTATION

- ▶ Severe malaria can lead to complications such as cerebral malaria, severe anemia, and organ failure.
- ▶ Prompt diagnosis and treatment are crucial to prevent mortality.
- ▶ In regions where malaria is no longer prevalent, such as U.S states, healthcare providers may lack familiarity with the disease (CDC, 2019).



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## Malaria & Neglected Tropical Diseases

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"Biological threats in recent years have endangered malaria control and elimination efforts, putting progress at risk."  
Dr Carlos Karamba, TSM Partnership to End Malaria [Page 02](#)

"Several veterinary drugs might be an attractive starting point for treating infections in humans."  
Jennifer Kales, Swiss Tropical and Public Health Institute (Swiss TPH) [Page 06](#)



**Dr Samuel Harrison**  
attends to malaria patients in the children's ward at the Kintampo Health Research Centre, Ghana.

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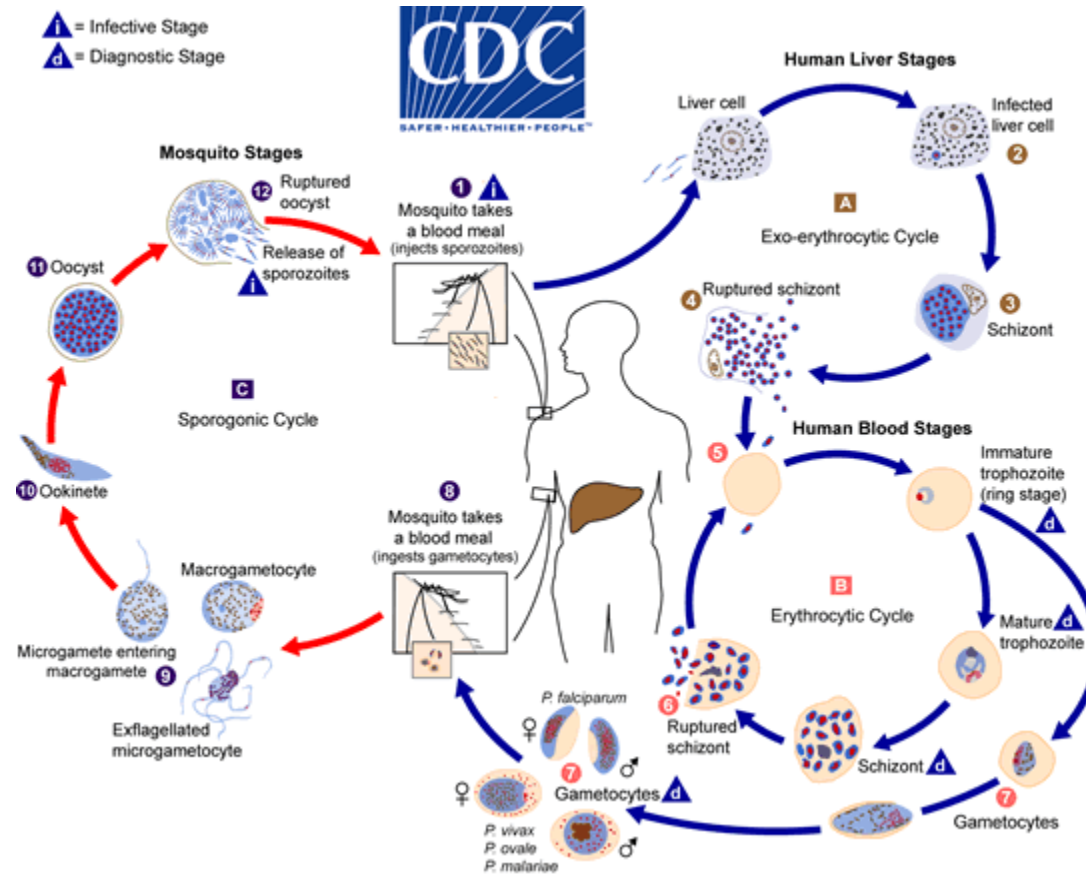
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# Course of Disease



- ▶ The course of malaria involves an incubation period
- ▶ Followed by symptomatic illness characterized by recurrent fever episodes.
- ▶ Without treatment, malaria can progress to severe disease rapidly (CDC, 2019).





# Course of Disease

- ▶ In severe cases, malaria can lead to multi-organ dysfunction and death.
- ▶ Early recognition of symptoms and appropriate management are essential to prevent complications.
- ▶ The diagnosis relies on the patient's symptoms and the physical findings seen during the examination.



# TESTS USED TO IDENTIFY THIS ILLNESS



- Rapid diagnostic tests



# TESTS USED TO IDENTIFY THIS ILLNESS

- ▶ The significance of a rapid diagnostic test (RDT) kit in decentralized settings is shown by the graphic representation of the kit
- ▶ Quick diagnostic tests (RDTs) are an invaluable instrument for the quick detection of malaria, especially in situations where laboratory infrastructure is inadequate.
- ▶ Through the use of enzyme-linked immunosorbent assay (ELISA) or indirect immunofluorescence (IFA), serology is able to identify antibodies against malaria parasites.



# TREATMENT

- ▶ Treatment for malaria typically involves antimalarial medications such as artemisinin-based combination therapies (ACTs).
- ▶ Multiple testing kits are accessible for the identification of antigens originating from malaria parasites.
- ▶ Adherence to treatment regimens and follow-up care are crucial for successful outcomes.



# CLINICAL PATIENT OUTCOME

- ▶ With timely diagnosis and appropriate treatment, most patients with uncomplicated malaria recover fully.
- ▶ However, severe cases require intensive care and may have long-term sequela
- ▶ Malaria has to be considered a possible medical emergency and be treated accordingly.





# REFERENCES

- ▶ CDC. (2022, April 22). Life Cycle of Anopheles Species Mosquitoes | Mosquitoes | CDC. [Www.cdc.gov.  
https://www.cdc.gov/mosquitoes/about/life-cycles/anopheles.html](https://www.cdc.gov/mosquitoes/about/life-cycles/anopheles.html)
- ▶ Gibson, L. (2023, December 4). World Malaria Report 2023: Key findings from the report. Target Malaria. <https://targetmalaria.org/latest/news/world-malaria-report-2023-key-findings-from-the-report/>
- ▶ Spitzen, J., Koelewijn, T., Mukabana, W. R., & Takken, W. (2017). Effect of insecticide-treated bed nets on house-entry by malaria mosquitoes: The flight response recorded in a semi-field study in Kenya. *Acta Tropica*, 172, 180-185. <https://doi.org/10.1016/j.actatropica.2017.05.008>
- ▶ Talapko, J., Škrlec, I., Alebić, T., Jukić, M., & Včev, A. (2019). Malaria: The Past and the Present. *Microorganisms*, 7(6), 179. <https://doi.org/10.3390/microorganisms7060179>