

# **Alpha university faculty of public Healths**

## **Assignment I'd 25/1145.**

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## **Arthropod-Borne Infections**

### **1. Introduction to Arthropod-Borne Infections**

Arthropod-borne infections (also called arboviral diseases) are illnesses caused by viruses, bacteria, or parasites transmitted to humans through the bites of infected arthropods such as mosquitoes, ticks, fleas, and lice. These infections are common in tropical and subtropical regions and can range from mild to life-threatening.

### **2. Types of Arthropod-Borne Infections**

These infections are categorized on the type of pathogen:

**Viral:** Dengue, Zika, Yellow fever, Chikungunya, West Nile virus

Bacterial: Lyme disease, Rocky Mountain spotted fever, Plague

Parasitic: Malaria, Leishmaniasis, Filariasis, Trypanosomiasis

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### **3. Signs and Symptoms of Arthropod-Borne Infections**

Symptoms vary depending on the pathogen but common ones include:

Fever and chills

Headache and muscle pain

Rash

Joint pain

Swollen lymph nodes

Nausea and vomiting

Neurological symptoms (in severe cases)

#### **4. Common Arthropod-Borne Infections**

Malaria (mosquito)

Dengue (mosquito)

Zika virus (mosquito)

Chikungunya (mosquito)

Lyme disease (tick)

Plague (flea)

Leishmaniasis (sandfly)

#### **5. Prevention and Control Measures**

Use insect repellents (DEET, picaridin)

Wear protective clothing

Use bed nets and window screens

Eliminate standing water (to reduce mosquito breeding)

Vector control programs (e.g., insecticide spraying)

Vaccination (e.g., Yellow fever vaccine)

Public education and awareness

## **6. Diagnosis of Arthropod-Borne Infections**

Blood tests: Serology, PCR, antigen detection

Microscopy: For malaria and other parasitic infections

Culture methods: For certain bacterial infection

Clinical history and exposure risk are also crucial for diagnosis

## **7. Treatment of Arthropod-Borne Infections**

Antiviral drugs: Limited for most; supportive care is key

Antibiotics: For bacterial infections like Lyme disease or plague

Antiparasitic drugs: For malaria (e.g., artemisinin-based therapies)

Supportive treatment: Hydration, pain relief, managing complications

Hospitalization may be needed in severe case

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