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"Q5"

Question No 1?

Define Malaria, symptoms, causal agents, general causes, Treatment and preventive measures?

Ans:-

Definition:-

Malaria is a life-threatening infectious disease caused by parasites of the Plasmodium genus, transmitted through the bites of infected female Anopheles mosquitoes.

Symptoms:-

Symptoms typically include fever, chills, sweats, headache, nausea, vomiting and body aches.

Causal agents:-

The main causal agents are five species of Plasmodium parasites: Plasmodium falciparum

, Plasmodium vivax, Plasmodium
ovale, Plasmodium malariarum
and Plasmodium knowlesi.

General causes:-

General causes include factors such as mosquito breeding in stagnant water, inadequate mosquito control measures and drug resistance.

Treatment:-

Treatment involves Antimalarial medications like artemisinin based combination therapies, chloroquine, and quinine.

Preventive measures:-

- i) Use bed nets
- ii) Use indoor residual spraying
- iii) Prophylactic medications for travelers and ongoing research into vaccine.

Q2:-

Typhoid:-

Definition:-

Typhoid fever is a bacterial infection caused by *Salmonella*

Typhi. It is a serious disease that can lead to

high fever, diarrhea and vomiting.

It is often spread through

contaminated food and water.

Symptoms:-

The symptoms of typhoid fever typically develop 1-3 weeks after exposure and may include:

- high fever (often as high as 104°F)
- weakness and fatigue
- headache
- abdominal pain
- constipation or diarrhea
- chills
- muscle aches
- loss of appetite, sweating

Causal agents:-

Typhoid fever is caused by the bacterium *Salmonella enterica*

serotype *Typhi*. Another related

bacterium, *Salmonella enterica*
serotype Paratyphi, causes a
similar but often less
severe illness called paratyphoid
fever.

General causes:-

Typhoid fever is mainly
spread through:

- ingestion of food or water contaminated with the feces of an infected person.
- consumption of raw fruits and vegetables that have been fertilized with human waste
- Direct contact with an infected person.

Treatment:-

Treatment for typhoid fever typically involves antibiotics to kill the bacteria. Common antibiotics include:

- Ciprofloxacin or ofloxacin for adults
- Azithromycin for children and those with mild cases
- Ceftriaxone for complicated or severe cases.

Preventive measures:-

- 1) Get vaccinated
- 2) Drink safe water
- 3) Eat safe food
- 4) Practice good hygiene
- 5) Use clean toilets
- 6) Be cautious when traveling

Q3:-

Dengue Definition:-

Dengue fever is a mosquito borne viral infection caused by the dengue virus (DENV). It is prevalent in tropical and subtropical regions around the world causing flu-like symptoms that can develop into severe form, such as dengue hemorrhagic fever.

Symptoms:-

Symptoms of dengue typically appear 4-10 days after infection.

- High fever
- Severe headache
- Pain behind the eyes

- Joint and muscle Pain
- Nausea and vomiting
- Skin rash, which appear 2-5 days after the onset of fever.
- In severe cases, symptoms may include:
 - Severe Abdominal Pain
 - persistent vomiting
 - Rapid breathing
 - Bleeding gums
 - fatigue

Causal Agents:-

Dengue is primarily spread through the bite of infected female Aedes mosquitoes, mainly Aedes Aegypti and to a lesser extent, Aedes Albopictus. These mosquitoes become infected when they bite a person already infected with dengue virus.

Treatment:-

There is no specific antiviral treatment for dengue. Treatment focuses on relieving symptoms and includes:

- Rest
- Hydration
- Pain relief: Using Pain relievers like Paracetamol to reduce fever and Pain.
- Medical care: In Severe cases, hospitalization may be required to manage complications, such as intravenous fluids, electrolyte replacement, and blood transfusions.

Preventive Measures:-

- Use Mosquito Repellents on exposed skin and clothes
- wear long sleeved shirts
Long pants shoes and socks
- Use mosquito nets while sleeping.
- Eliminate standing water
- Cover water containers
- Use Participate in and support community-based mosquito control programmes
- Raise awareness about dengue prevention and control through education campaigns

Q.4:

Hepatitis:-

Definition:-

Hepatitis refers to inflammation of the liver, which can be caused by various factors, including viral infection, alcohol use, medications and certain medical conditions. The most common types are viral hepatitis which include hepatitis such as A, B, C, D and E.

Symptoms:-

- Fever
- Fatigue
- Loss of appetite
- Nausea and vomiting
- Dark Urine
- Pale Stool
- Joint Pain
- Jaundice (yellowing of skin and eyes)
- Itchy skin

Causal Agents:-

- Hepatitis A: caused by the hepatitis A virus (HAV), usually

Spread through ingestion of contaminated food and water.

- Hepatitis B: Caused by the (HBV) H. Spread through ~~injection~~ ^{of} contact with infectious body fluids, such as blood, semen and vaginal secretions.

- Hepatitis C: Primarily spread through ~~contact~~ blood-to-blood contact.

- Hepatitis D: which only infects those already infected with HBV.

- Hepatitis E: Usually spread through ingestion of contaminated water.

General causes:-

- viral infections: Hav, HBV, HCV, HDV, HEV.

- Alcohol: Excessive alcohol consumption.

- Certain medications and drugs can cause drug-induced hepatitis.

- Autoimmune hepatitis occurs when the body's immune system attacks liver cells.
- other viral, bacterial, or parasitic infections.

Treatment:-

- Hepatitis A: No specific treatment; supportive care to manage symptoms. Most people recover fully with no lasting liver damage.
- Hepatitis B: Acute cases often resolve on their own; chronic cases may require antiviral medications to reduce liver damage and manage the infection.
- Hepatitis C: Treated with antiviral medications, which can often cure the infection.
- Hepatitis D: Treatment focuses on managing HBV infection since HDV depends on HBV for replication.
- Hepatitis E: No specific treatment; supportive care. Most people recover fully.

other treatment for hepatitis may include:

- Liver Transplantation in severe cases where liver failure occurs.

Preventive Measures:-

- Safe and effective vaccines are available to prevent hepatitis A and B infection.
- Immune globulin injection can also prevent Hepatitis A and B infection if they are given within two weeks of exposure.
- There are currently no vaccine available to prevent infection with HCV.
- The best protection against these viruses is to avoid high-risk activities,

Q5:-

Polio:-

Definition :-

Polio or Poliomyelitis, is a highly infectious viral disease caused by poliovirus. It primarily affects young children and can lead to permanent paralysis or even death in severe cases. Polio mainly spreads through contaminated water and food and multiplies in the intestines.

Symptoms :-

Polio symptoms can vary depending on the type of infection.

• Non-Paralytic Polio:

- Fever
- Sore throat
- Headache
- Vomiting
- Fatigue
- Back and neck pain
- Muscle stiffness

• Paralytic Polio:

- Loss of reflexes
- Severe muscle pain and spasms
- Loose and floppy limbs
- Sudden paralysis
- Deformed limbs (especially the hips, ankles and feet)

Causal Agents:-

Polio is caused by the Poliovirus, which is a member of the enterovirus subgroup of the Picornaviridae family. There are three serotypes of the Poliovirus: type 1, type 2 and type 3.

General Causes:-

Polio spread through

- Fecal-Oral Route: ingesting food or water contaminated with the feces of infected person.
- Oral-oral Route: Less commonly through saliva from an infected person.

Treatment:-

There is no cure for Polio, but the treatment focuses

an alleviating symptoms and

Preventing complications:

- Supportive care
 - bed rest
 - Pain relievers to manage pain and spasms
 - Physical therapy to prevent deformities and loss of muscle function
- nutritional support

Preventive Measures:-

vaccination

hygiene and sanitation

Public health Measures