

Malaria

Defination:

Malaria is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries. It is curable and preventable. The infection is caused by parasite and does not spread from person to person.

Symptoms:

- i) Extreme tiredness and fatigue.
- ii) Impaired consciousness.
- iii) Multiple convulsions.
- iv) Severe illness.
- v) Difficulty breathing.
- vi) Dark or bloody urine.
- vii) Jaundice (yellowing of the eye and skin).
- viii) Abnormal bleeding.

Causal agent of Malaria:

Female Anopheles mosquitoes are the causal agent of Malaria. It is single celled microorganism of the Plasmodium group.

General Causes:

- i) Parasite
- ii) Mosquito vector
- iii) Environmental factor. (Climate, water sources, geography)
- iv) Human factors. (travel and migration, poor sanitation)
- v) Lack of prevention and control measures.
- vi) Socio economic factors. (poverty, health care infrastructure).

Treatment Of Malaria:

- i) Antimalarial medications.
- ii) Supportive care.
- iii) Preventing relapse.
- iv) Monitoring and follow up.
- v) Special considerations.

Preventive Measures:

- i) Use an EPA-registered insect repellent
- ii) wear long-sleeved shirt and long pants
- iii) Treat clothing and gear with permethrin
- iv) keep mosquito out of your home.
- v) Sleep under a mosquito net.

TYPHOID

Defination:

Typhoid fever is a life-threatening infection caused by the bacterium *Salmonella Typhi*. It is usually spread through contaminated food or water. Once *Salmonella typhi* bacteria are ingested, they multiply and spread into the blood stream.

Symptoms:

- (i) Prolonged high fever.
- (ii) Fatigue
- (iii) Headache
- (iv) Nausea.
- (v) abdominal pain
- (vi) Constipation.
- (vii) Diarrhoea.

Causal Agent:

Salmonella Typhi.

General Causes of Typhoid:

- i) Bacterial infection.
- ii) Transmission. (oral route, Direct contact)

- iii) Environmental factors.
(Contaminated water, poor Sanitation, food contamination)
- iv) Human factors. (Carriers, Travel)
- v) Socioeconomic factors.
(Poverty, urbanization)
- vi) Lack of vaccination.

Preventive Measures:

- i) Ensure safe drinking water.
- ii) Practice good hygiene.
- iii) Proper sanitation.
- iv) vaccination
- v) Food safety.

Treatment Of Typhoid

- i) Antibiotic therapy.
- ii) Supportive care.
- iii) Management of complications.
- iv) Monitoring and follow up.
- v) Preventing Relapse and Carrier
state.
- vi) Public health measures.
- vii) Education and awareness.

Dengue

Defination:

Dengue (break-bone fever) is a viral infection that spreads from mosquitoes to people. It is more common in tropical and subtropical climates.

Symptoms:

- i) High fever (40°C / 104°F)
- ii) Severe headache
- iii) Pain behind the eyes.
- iv) muscle and joints pains.
- v) nausea.
- vi) Vomiting
- vii) Swollen glands.
- viii) rash.

Causal Agent:

DENV is the causative agent of Dengue.

General Causes Of Dengue:

- i) Viral infection
- ii) Mosquito ~~factor~~ vector.
- iii) Environmental factors.
- iv) Human factors.
(population Movement, Inadequate Mosquito Control.)

v) Socio economic factors.
(poverty, lack of awareness)

vi) Lack of preventive measures. (vaccine etc)

Treatment Of Dengue:

- 1) Symptomatic treatment. (Fever and pain)
- 2) Hydration.
- 3) Monitoring and supportive care.
- 4) Management of complication.

Preventive Measures.

- i) Reduce mosquito habitats.
- ii) Stay in well-screened houses.
- iii) Use mosquito Repellents.
- iv) wear protective clothing.
- v) sleep under Mosquito-net
- vi) Do not let water stagnate anywhere.
- vii) keep house airy and well-lit
- viii) time your outing

Hepatitis

Defination: Hepatitis is an inflammation of the liver that is caused by a variety of infectious viruses and non-infectious agents leading to a range of health problems, some of which can be fatal.

Symptoms:

- (i) Fatigue
- (ii) Flu-like symptoms (fever muscle or joint pain)
- (iii) Dark urine
- (iv) Pale stool
- (v) Abdominal pain (particularly in the upper right quadrant)
- (vi) Loss of appetite.
- (vii) Nausea and vomiting
- (viii) Jaundice (yellowing of the skin and eyes)
- (ix) Itching
- (x) Swelling in the legs and ankles.

Causal Agents:

1. Hepatitis A virus (HAV)
2. Hepatitis B virus (HBV)
3. Hepatitis C virus (HCV)
4. Hepatitis D virus (HDV)
5. Hepatitis E virus (HEV)

General Causes Of Hepatitis:

1. Viral infections
2. Alcohol consumption.
3. Medication and toxins.
4. Autoimmune diseases.
5. Metabolic disorders.
6. Non alcoholic fatty liver disease. (NAFLD)
7. Infection from other organisms.

Preventive Measures.

1. Vaccination.
2. Safe practices.
3. Avoiding contaminated needles.
4. Safe sexual practices.
5. Blood screening.
6. Avoiding Alcohol and toxins.
7. Healthy life style.
8. Autoimmune Hepatitis Management.

Treatment of Hepatitis:

There is no specific treatment for acute hepatitis B. Chronic hepatitis B can be treated with medicines.

Care for acute hepatitis B should focus on making the person comfortable. They should eat a healthy diet and drink plenty of liquids to prevent dehydration from vomiting and diarrhea.

Chronic hepatitis B infection can be treated with oral medicines, including tenofovir or entecavir.

Treatment Can:

1. Slow the advance of cirrhosis.
2. Reduce cases of liver cancer.
3. Improve long term survival.

⇒ Most people who start hepatitis B treatment must continue it for life.

Polio

Defination:

Poliomyelitis (Polio) is a highly infectious viral disease that largely effect children under 5 years age. The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and cause paralysis.

Causal Agent:

Polio viruses (genus Enterovirus) are small, non enveloped viruses with a single-stranded RNA genome.

Symptoms Of Polio:

1. Fever
2. Fatigue
3. headache
4. vomiting
5. Stiffness of the neck.
6. Pain in the limbs.

General Causes Of Polio:

1. Polio virus infection.
2. Fecal - oral route.
3. oral - oral route.
4. Direct Contact.
5. Use of contaminated food and water.

Treatment Of Polio:

1. Supportive care.
(Pain management & rest)
2. Physical therapy (muscle strengthening Exercises)
3. Respiratory support.
(ventilation)
4. Rehabilitation. (Long term therapy)
5. Prevention of complications.
6. Inactivated polio virus vaccine (IPV)
7. Oral polio virus vaccine.

Polio Preventive Measures:

1. Polio vaccination
2. Wash hands regularly.
3. Use a toilet
4. Consume food that is fully cooked.
5. Drink water that is safe.