

## Es - Assignment:

Topic: Malaria, Typhoid, Dengue Fever, Hepatitis, Poliomyelitis/Polio.

## 1) Malaria:

Definition: It is basically an infection caused by a parasite (Plasmodium) that is transmitted into the human body by (Anopheles Mosquito).

Causative Agent:

There are few species of Genus Plasmodium:

- 1) P. Falciparum. → It cause severe / Malignant Malaria.
- 2) P. Vivax
- 3) P. ovale
- 4) P. Malariae
- 5) P. Knowlesi.

## General Causes:-

- 1) Blood Transfusion  
if the donated blood contains the Plasmodium species.
- 2) Congenital Malaria:  
pregnant women infected with malaria can transmit the parasites to her unborn child. (through placenta).

3) Organ Transplantation:  
 from an infected donor.

4) Seasonal variations

5) Public Health Infrastructure.

→ Ineffective vector control program  
 and lack of public health education.

6) Poverty:

→ It can hinder the ability to afford  
 preventive measures.

Symptoms:

1) Intermittent fever (Specific).

2) Nausea / vomiting

3) Headache

4) Fatigue / Muscular pain.

5) Jaundice,

6) Seizures.

7) Coma / Death.

8) Severe anaemia / Hypoglycaemia / ARDS / DIC (Complications).

(Non-Specific)

Treatment:

Specific

1) Anti-Malarial Drugs.

- Artesunate / Artemether.

- Chloroquine

- Primaquine (To prevent relapse)

- Quinine Sulphate

(Severe Malaria).

Non-Specific / Symptomatic.

- Anti pyretics.

- Antiemetics.

etc.

### Preventive Measures:-

- 1) Use of Nets for sleeping.
- 2) Indoor Residual Spraying.
- 3) Use of Mosquito repellents.
- 4) protective Clothing
- 5) Env: Management
  - Elimination of standing water where mosquito breed.
- 6) prophylactic Antimalarial Medications.
- 7) Public Health education.

### 2) Typhoid: OR/ Enteric Fever.

Definition: It is a bacterial infection caused by *Salmonella typhi*.

Causative Agent: Bacteria (*Salmonella*).

Mode of Transmission: Feco-oral route.

General causes:

This bacteria is transmitted into the human body from/by:

- 1) Use of contaminated water
- 2) poor Self Hygiene/ Improper Hand Washing.
- 3) Use of contaminated food.

## Symptoms:

Specific

Non-Specific.

- 1) Continuous Fever.
- 2) Constipation/Diarrhea.
- 3) Rose Spots.

- 1) Nausea/Vomiting.
- 2) Headache.
- 3) Bodyache.

## Complications:

- 1) Intestinal Hemorrhage.
- 2) Intestinal perforation.

## Treatment/Rx.

- 1) Antibiotics. Specifically  
 - Cefixime in oral Form &  
 Ceftriaxone in IV Form.

## Preventive Measures:-

- 1) proper Hand washing / proper hygiene.
- 2) Avoid consumption of Contaminated Water / Food.
- 3) Wash the vegetables / Chicken (Food items) properly before cooking.

# Dengue Fever. (viral).

Definition: It is caused by Flaviviruses which is transmitted into the human body by bite of *Aedes Aegypti* mosquito.

Causative Agent: *Aedes Aegypti* mosquito.  
 Flaviviruses.

General Causes & Triggering Factors:

- 1) Environmental Factors.
- 2) Human Behavior & Practices.
- 3) Climate Change (Rainfall).
- 4) Lack of Awareness & public Health Infrastructure.

Symptoms:

Specific

Non-Specific.

- 1) Continuous or Saddleback fever.

- 1) Nausea/vomiting

- 2) Headache.

- 3) Bodyache.

During this period signs of Dengue Hemorrhagic Fever (DHF) / or Dengue Shock Syndrome (DSS) may develop.

- 4) Weakness.

- 5) Mucosal Bleeding

Continuous fever: for 7-8 days

Saddle back: with a break on

4th or 5th day and then recrudescence.

## Treatment / Rx

- 1) No Any Specific Antiviral treatment for Dengue Fever.
- 2) only we can treat it Symptomatically by giving.
  - 1) Paracetamol (Anti pyretic).
  - 2) Antiemetics (For vomiting).
  - 3) Muscle Relaxants (For ~~muscle~~ Bodyache).
  - 4) Advise pt to take a high nutritious diet, keep him/herself hydrated.
  - 5) Bed rest.

## Preventive Measures:-

- 1) Use of Insect Repellents.
- 2) Wear/ proper clothing
- 3) Use Nets/ mosquito Nets.
- 4) Control Mosquito breeding sites.
- 5) Env. Management.
- 6) Public Health education.
- 7) Vaccination  
- Not available in PAKISTAN but available in some countries.

# Hepatitis <sup>OR</sup> Inflammation of Liver.

Definition: It is a condition ~~caused~~ in which inflammation of Liver occurs if there are multiple causes of hepatitis.

## Causes:

- 1) Viral Infections. (JAPD)  
eg: HAV, HBV, HCV, Hep E virus.
- 2) Bacterial Infections.
- 3) Exposure to Alcohol.  
(prolonged exposure).
- 4) Exposure / use of Hepatotoxic drugs.
- 5) use of Hepatotoxic Chemicals.

## Symptoms:

### Specific

- 1) Jaundice.  
Yellow discoloration of eyes, skin.
- 2) Fever (may be specific depending on the cause upon)

### Non-Specific.

- 1) Abdominal pain / Tenderness.
- 2) Loss of Appetite.
- 3) Fatigue / ~~Weak~~ Generalized Weakness.

Viral hepatitis is most important of all of hepatitis.

So, we are discussing it.

There are five types of viral hepatitis/or viruses which cause hepatitis (viral), out of them three are important.

1) Hepatitis A virus      2) Hep B virus

↓ Def:

3) Hep C virus.

Simply, infection of hepatitis A virus causes inflammation in the liver which leads to different symptoms.

Causative Agent. Hep A virus.

~~From~~ Source of Hep A virus.

Basically, it is present in human (feces) so improper hand washing especially after using toilet leads to Hep A virus infection, consumption of drinking water which is contaminated with sewage. Use of contaminated water for washing, fruits/vegetables.

Symptoms: Same as written on previous page with a addition of (Diarrhea).

Treatment / Rx:

→ No specific Rx.

→ Body covers it.

Rare

→ In case of severity/severe infection

which leads to liver failure → Liver Transplant

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## Hepatitis B Virus Infection.

Def: Inflammation of Liver caused by Hepatitis B virus infection.

Causative Agent: Hep B Virus.

Sources of Hep B Virus / How it transfers into the human body.  
 & Hep C

Source. It transferred from infected person to another person through

- 1) unprotected Sexual intercourse.
- 2) unscreened blood Transfusion
- 3) IV drug abusers
- 4) Tattoos / acupuncture needles.
- 5) Vertical Transmission 90%  
 From: Mother to Child.
- 6) Sharing of Toothbrushes, Razors, Nail Cutter.

## Rx of Hepatitis B Virus:-

Supportive  
 In case of Acute Hep B virus inf.

Specific

- 1) Anti viral therapy.
- 2) Interferon.
- 3) In case of Liver failure; Transplantation.

## Rp of Hepatitis C Virus.

Specific: Anti viral therapy.  
 Interferon ± Ribavirin  
 for 12 - 24 weeks.

preventive measures for viral Hepatitis.

1) Vaccination for Hep A & B virus.  
 also prevent the risk factors.

2) In case of HCV & HEV there is no vaccination you have to only prevent the risk factors.

For exp: 1) Avoid unprotected Sexual intercourse.

2) Avoid unscreened Blood Transfusion.

or preferred screened

Avoid 3) Shaving of Razors, Nail Clippers etc.

4) Avoid using ~~same~~ contaminated needles if you are IV drug abuser.

5) Postpartum test the mother to prevent the vertical transmission.

6) Avoid the activities in which single needle is used for multiple persons.

eg: Ear piercing, Tattoos formation.