

HEPATITIS C

## **INTRODUCTION**

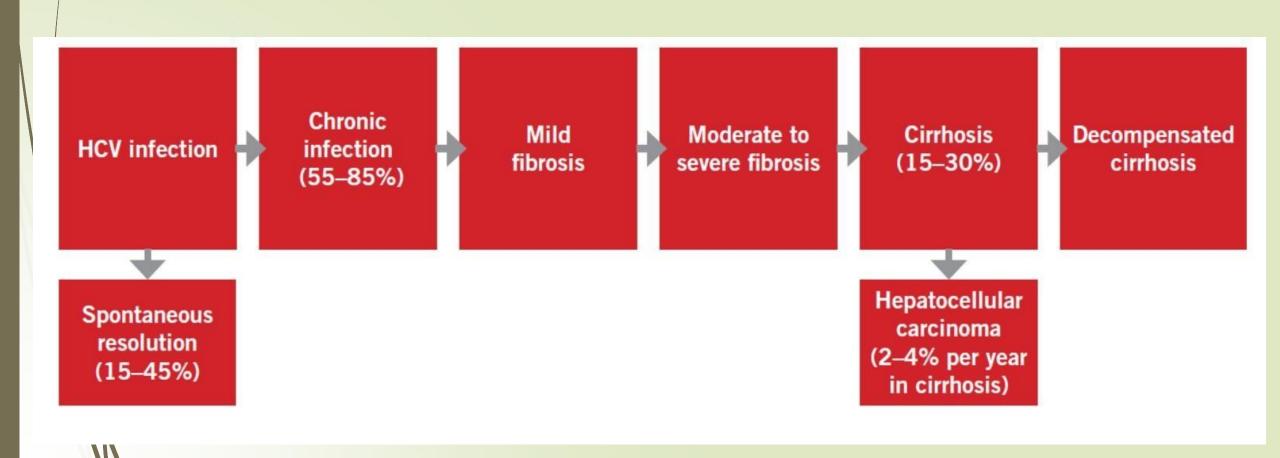
- ☐ Liver disease caused by Hepatitis C virus (HCV)
- ☐ Identified in 1989
- ☐ Single stranded RNA virus, belonging to
- Causes both acute and chronic infection.
- ☐ Incubation period- 2 weeks to 6 months.

flavivirus group, genus Hepacivirus.

### **GEOGRAPHICAL DISTRIBUTION**

- ☐ Found worldwide.
- ☐ The most affected regions are the WHO Eastern Mediterranean Region and the WHO European Region, with an estimated prevalence in 2015 of 2.3% and 1.5% respectively.
- ☐ Prevalence of HCV infection in other WHO regions varies from 0.5% to 1.0%.
- Depending on the country, hepatitis C virus infection can be concentrated in certain populations. For example, 23% of new HCV infections and 33% of HCV mortality is attributable to injecting drug use.

### NATURAL HISTORY OF HCV INFECTION



### **TRANSMISSION**

HCV is a blood borne virus, most commonly transmitted through-

Receipt of contaminated blood transfusions.

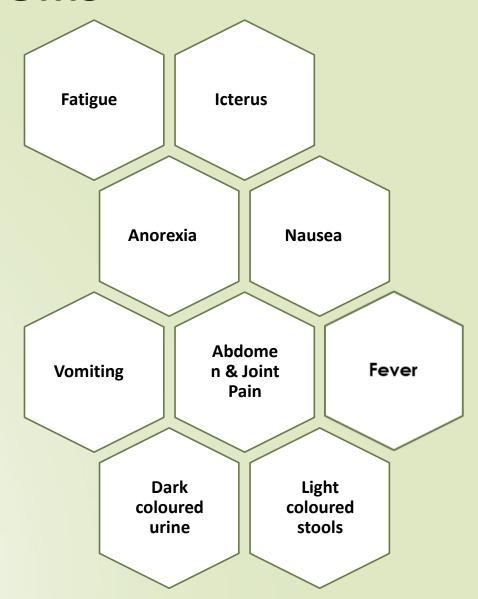
Injections given with contaminated syringes & needle stick injuries

Less commonly through transplacental and sexual route.

Being born to a Hepatitis C infected mother.

Not spread through breast milk, food, water or by casual contact.

# **SYMPTOMS**



### SCREENING AND DIAGNOSIS

Serological tests for anti HCV antibodies

Nucleic acid test for HCV-RNA to confirm chronic HCV infection

Liver biopsy to asses the degree of liver damage

### HIGH RISK FOR HCV INFECTION

- ☐ Injectable drug users.
- Recipients of infected blood.
- Health care workers.
- ☐ People living with HIV.
- People with abnormal liver tests or liver disease.
- ☐ /Infants born to infected mothers.



### **TREATMENT**

- A new infection with HCV does not always require treatment, as the immune response will clear the infection. However, when HCV infection becomes chronic, treatment is necessary.
- □ WHO's updated 2018 guidelines recommend therapy with pan-genotypic direct-acting antivirals (DAAs). DAAs can cure most persons with HCV infection, and treatment duration is short (usually 12 to 24 weeks), depending on the absence or presence of cirrhosis.
- ☐ WHO recommends treating all persons with chronic HCV infection over the age of 12.

# **TREATMENT (Contd...)**

- ☐ In adolescents aged 12-17 years or weighing at least 36 kg with chronic HCV infection, WHO recommends:
  - 1. sofosbuvir/ledipasvir for 12 weeks in genotypes 1, 4, 5 and 6
  - 2. sofosbuvir/ribavirin for 12 weeks in genotype 2
  - 3. sofosbuvir/ribavirin for 24 weeks in genotype 3.
- ☐ In children aged less than 12 years with chronic HCV infection, WHO recommends:
  - 1. deferring treatment until 12 years of age
  - 2. treatment with interferon-based regimens should no longer be used.

## PREVENTION AND CONTROL

#### PRIMARY PREVENTION

- 1. Hand hygiene: Including surgical hand preparation, hand washing and use of gloves.
- 2. Safe and appropriate use of health care injections
- 3. Safe handling and disposal of sharps and waste.
- 4. Testing of donated blood for Hepatitis B & C.
- 5. Training of health personnel.
- 6. Promotion and use of condoms.

#### SECONDARY AND TERTIARY PREVENTION

#### **WHO Recommendations**

- 1. Education and counselling on options for care and treatment.
- 2. Immunization with the Hepatitis A & B vaccines to prevent coinfection from these Hepatitis viruses to protect their Liver.
- 3. Early and appropriate medical management including antiviral therapy if appropriate.
- 4. Regular Monitoring for early diagnosis of chronic lever disease.

## HEPATITIS.

### TIME TO TEST. TIME TO TREAT. TIME TO CURE.

MORE THAN 60% OF LIVER CANCER CASES ARE DUE TO LATE TESTING AND TREATMENT OF VIRAL HEPATITIS B AND C INFECTIONS.

#TestTreatHepatitis #WorldHepatitisDay





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#### HEPATITIS ATTACKS THE MOST VULNERABLE

Over 90% of new hepatitis B infections occur through mother-to-child transmission and during early childhood. But other groups are also at higher risk of both hepatitis B and C, including people who inject drugs; men who have sex with men; people who have had tattoos or acupuncture; partners of people living with hepatitis B; and health care workers.

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### REFERENCES

- ☐ Parks textbook of Preventive and Social Medicine (Chapter 5: Epidemiology of Communicable Diseases-Hepatitis C)
- ☐ Community Medicine with recent advances. Author: A H Surryakantha (Section 5: Epidemiology Chapter 20: Epidemiology of Communicable Diseases-Hepatitis C)
- ☐ World Health Organization https://www.who.int/news-room/fact-sheets/detail/hepatitis-c
- □ World Health Organization Infographics <a href="https://www.who.int/news-room/campaigns/world-hepatitis-day/2018">https://www.who.int/news-room/campaigns/world-hepatitis-day/2018</a>