### VIRAL HEPATITIS E

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## **Hepatitis E Virus**



### **Hepatitis E - Clinical Features**

Incubation period: Average 40 days

Range 15-60 days

Case-fatality rate: Overall, 1%-3%

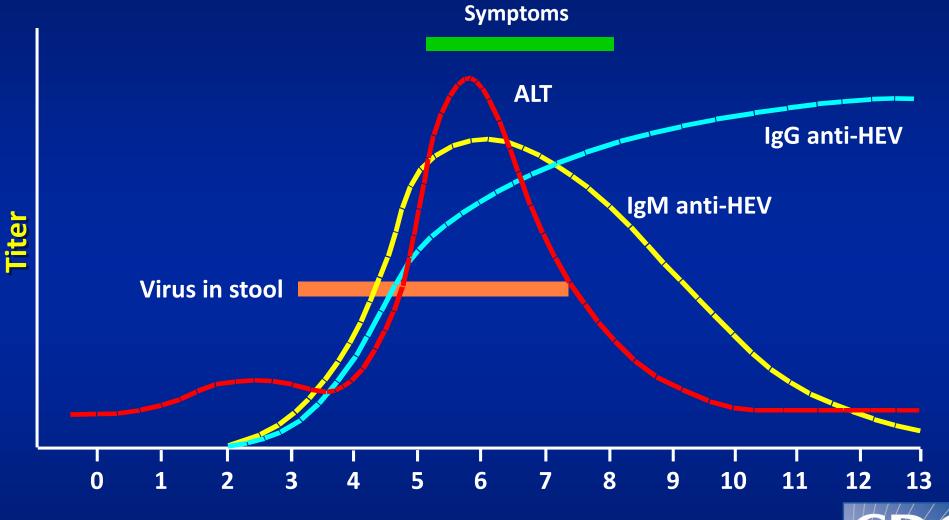
Pregnant women, 15%-25%

Illness severity: Increased with age

Chronic sequelae: None identified



# Hepatitis E Virus Infection Typical Serologic Course



**Weeks after Exposure** 



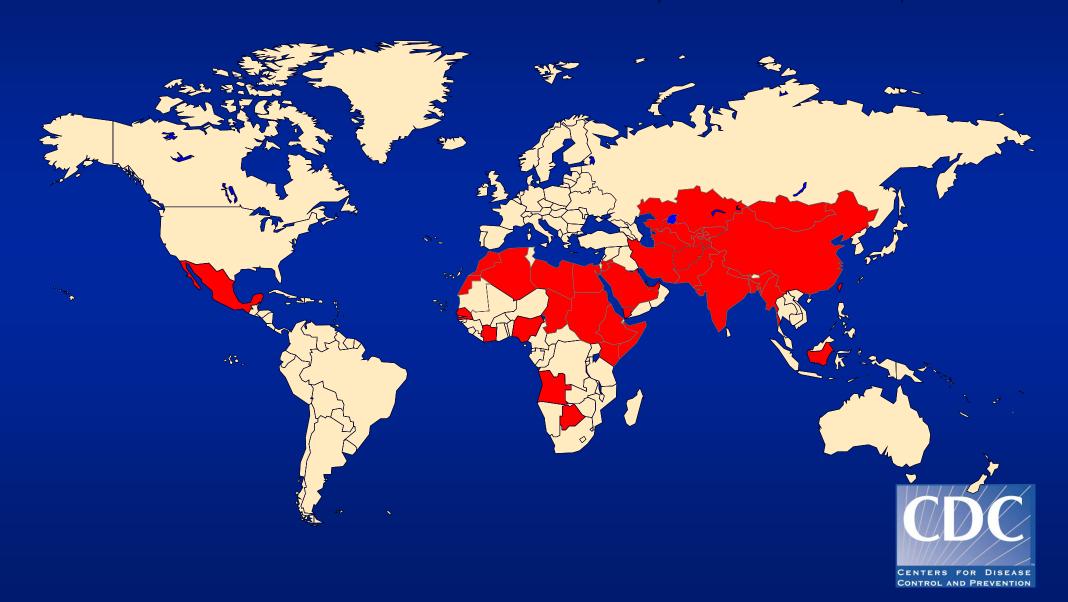
## Hepatitis E - Epidemiologic Features

- Most outbreaks associated with fecally contaminated drinking water
- Minimal person-to-person transmission
- U.S. cases usually have history of travel to HEV-endemic areas



#### **Geographic Distribution of Hepatitis E**

Outbreaks or Confirmed Infection in >25% of Sporadic Non-ABC Hepatitis



## Prevention and Control Measures for Travelers to HEV-Endemic Regions

- Avoid drinking water (and beverages with ice) of unknown purity, uncooked shellfish, and uncooked fruit/vegetables not peeled or prepared by traveler
- IG prepared from donors in Western countries does not prevent infection
- Unknown efficacy of IG prepared from donors in endemic areas
- Vaccine?



| Viral hepatitis (VH)                                  |                            |   |                              |               |              |                          |
|---|----------------------------|---|------------------------------|---------------|--------------|--------------------------|
|   |                            | А                                       | В                            | С             | D            | Е                        |
|   |                            | Picornaviridae                          | Hepadnaviridae               | Raviviridae   | Deltaviridae | Hepeviridae              |
|   | nucleic acid               | RNA                                     | DNA                          | RNA           | RNA          | RNA                      |
| Clinical features                                     |                            | fever, malaise and abdominal discomfort |                              |               |              |                          |
| Association with cirrhosis and hepatocelular carcinom |                            | no                                      | +                            | +             | with VHB     | no                       |
| fulminant %)  |                            | 0,1                                     | 0,1-1,0                      | 50            | 5 - 20       | 1-2 (10-20 in pregnancy) |
| Incubation period (days)                              |                            | 15-50                                   | 28-180                       | 15-160        | ???          | 15-45                    |
| The period of infectivity                             | Incubation period          | last 2 weeks                            | last 2 months                | last 2 months | ??           | ??                       |
|   | acute illness              | first day                               | entire period                | entire period | ??           | ??                       |
|   | transition to chronicity % | no                                      | 1 - 10                       | 50            | possible     | no                       |
| Output Port - infectious biological material          | faeces                     | ++++                                    | -                            | -             | -            | +++                      |
|   | blood                      | + viremia 1 day                         | +++                          | ++            | +            |                          |
|   | genital secretions         | -                                       | +++                          | ++            | ?            | -                        |
| Mode of transmission                                  | fecal-oral                 | +                                       | -                            | -             | -            | +                        |
|   | by blood                   | rarely                                  | +                            | +             | +            | -                        |
|   | sexual contact             | +                                       | +                            | rarely        | +            |                          |
|   | vertical                   | -                                       | +                            | rarely        | +            | -                        |
| Imunization   |                            | Inactivated hepatitis A vaccines        | active + passive imunization | no            | no           | no                       |