

## Hepatitis E virus infection

# DIAGNOSING HEV INFECTION

### Patient 1

#### Case history

- Nausea
- Vomiting
- Fever
- Jaundice
- Onset one week ago
- Visited family in Mexico four weeks ago



Hannah Doe,  
52-years-old

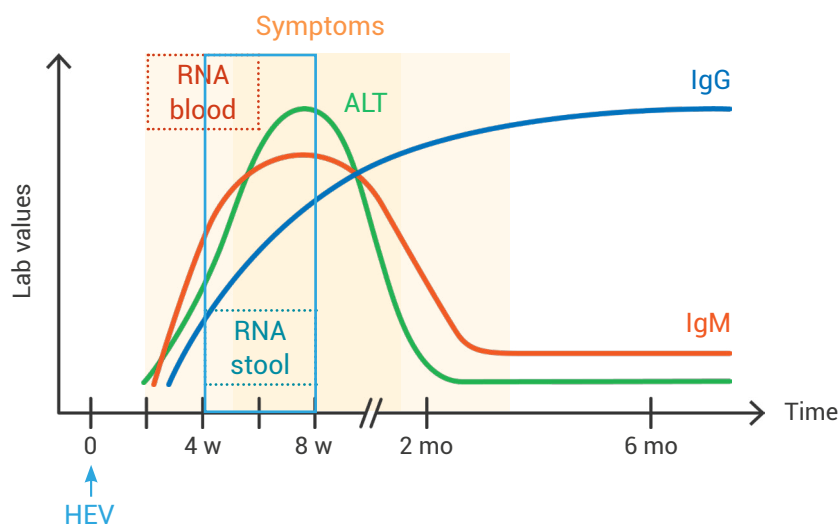
#### Laboratory report

ALT	2490 (5–35 IU/L)
<b>Hepatitis E:</b>	
Anti-HEV IgM	+
Anti-HEV IgG	+
HEV RNA (stool)	+

#### Interpretation

Hannah has no history of immunosuppression. Her ALT is very high, which signifies serious liver damage. Anti-HEV IgM and IgG are both positive

and we detect RNA in Hannah's stool. Based on these results, we can conclude that Hannah is most likely in the early phase of HEV infection.



## Patient 2

### Case history

- Abdominal pain
- Recent onset
- Elevated liver enzymes
- Lung transplant eight years ago
- On immunosuppressive therapy
- Hunter



Pete Doe,  
60-years-old

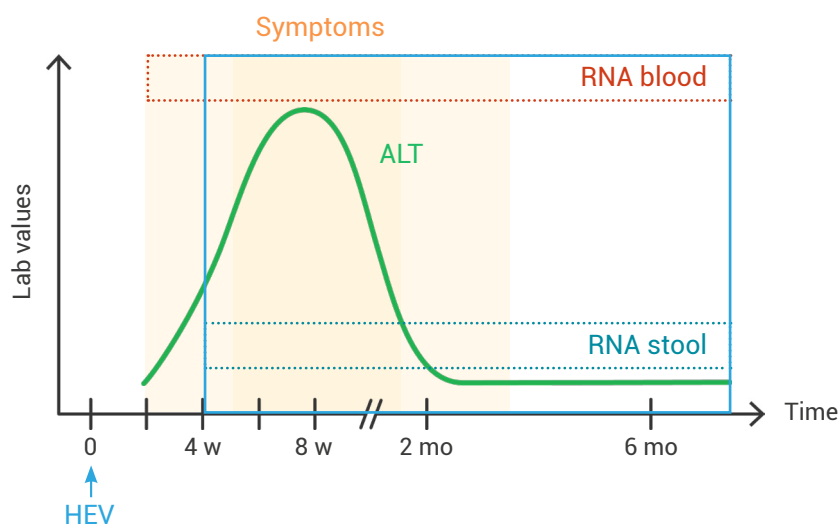
### Laboratory report

ALT	450 (5–35 IU/L)
<b>Hepatitis E:</b>	
Anti-HEV IgM	–
Anti-HEV IgG	–
HEV RNA (stool)	+

### Interpretation

Pete is immunocompromised due to his medication. Since immunocompromised patients may not produce antibodies, it is essential to measure RNA. Pete's lab report shows elevated ALT levels (a sign

of liver damage), but negative anti-HEV antibody tests. However, there is RNA detectable in his stool. The latter result illustrates an active, ongoing HEV infection.



#### DIAGNOSIS

*Hannah suffers from an acute hepatitis E infection.*

*Pete's history and lab results suggest he suffers from a hepatitis E infection.*

*Based on the laboratory findings, we cannot determine when Pete was infected—it may have been recently, or more than six months ago. However, it is not necessary to determine this at diagnosis. What is important is that Pete gets appropriate treatment and follow ups.*