

HAV+HEV

## HAV & HEV - A Life-threatening Need to Differentiate



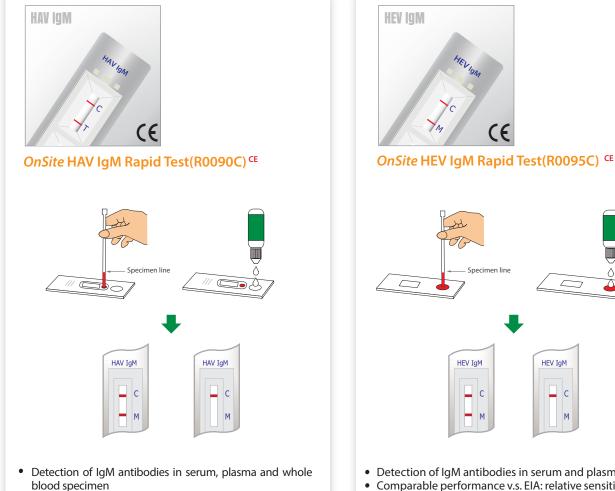
## **HEPATITIS INFECTION**

Hepatitis A virus (HAV) is one of the most common forms of hepatitis. This highly contagious disease is spread through contaminated food and water.

Hepatitis E virus (HEV) was identified in 1980 as a new hepatitis pathogen which is found primarily in Asia, Africa, and South America, is contracted in a similar fashion to hepatitis A with an additional possibility of zoonotic transmission.

Clinically, both diseases have similar symptoms, but HEV infection is more severe, resulting in a 1-2% death rate in adults, while HAV results in less than 0.4% mortality. In pregnant women HEV is often associated with fulminant hepatic failure often suffering a 20% elevated mortality rate due to the disease in the third trimester.

## **HAV&HEV RAPID TESTS BY CTK**



- blood specimen Comparable performance v.s. EIA: relative sensitivity:
- 90.6%, relative specificity: 97.6%, overall agreement: 95.4% 24 month shelf life at 2-30°C
- Detection of IgM antibodies in serum and plasma specimen

HEV IgM

С

М

- Comparable performance v.s. EIA: relative sensitivity: 98.1%,
- relative specificity: 99.2%, overall agreement: 98.1% 24 month shelf life at 2-30°C •







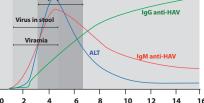
# **OnSite HAV+HEV Rapid Tests**

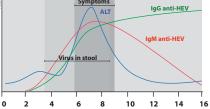
### **HAV and HEV infection profile**





Parameters	HAV infection	HEV Infection	
Transmission	Oral-fecal route	Oral-fecal route	
	Contaminated food & water	Contaminated food & water	
	Direct contact with an infectious person	Rarely person to person transmission	
	Rarely via blood exposure	Possibility of zoonotic spread	
Incubation Time	2 to 7 weeks, average 4 weeks	2 to 9 weeks, average 6 weeks	
Demographics	Affects all age groups	Symptomatic HEV infection is most commont in young adults aged 15-40 yrs A symptomatic or a typical infection seen mostly in children	
Disease Course	Self limiting	Self limiting Chroni chepatitis is connected to organ transplant recipients	
Mortality Rate	0.4%	1-2% in adults 20% of pregnanat women in 3rd trimester	
Immunity	Life-long immunity against re-infection	People may become re-infected over the course of their lives	
Vaccination	Yes	No	
Annual Infection	1.4 million	20 million	
Serological Profile	Hepatitis A virus infection Typical Serologic Course	Hepatitis E vIrus infection Typical Serologic Course	





#### **OnSite** Rapid Tests

Catalog	Product	Detection	Sample	Shelf Life
R0090C	HAV IgM Rapid Test CE	Detects only IgM	S, P,WB	24 month
R0092C	HAV IgG/IgM Rapid Test <sup>CE</sup>	Detects both IgG and IgM in one test	S, P,WB	24 month
R0095C	HEV IgM Rapid Test CE	Detects only IgM	S, P	24 month
R0096C	HEV IgG/IgM Rapid Test CE (coming soon)	Detects both IgG and IgM in one test	S, P,WB	24 month

### **RecombiLISA** ELISA Tests

Catalog	Product	Detection	Sample	Test Time
E0100	HAV IgM ELISA CE	Qualitatively detects IgM to HAV	S, P	70 mins
E0105	HEV IgM ELISA <sup>CE</sup>	Qualitatively detects IgM to HEV	S, P	75 mins

Adaptable to fully automated ELISA systems





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