



CTK

INSIGHTS

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**Both the World Hepatitis Alliance
and the WHO's World Hepatitis
Day's theme for 2016 is**

ELIMINATION

“ to achieve elimination, greater awareness, increased diagnosis and key interventions including universal vaccination, blood and injection safety, harm reduction and treatment are all needed. ”

—The World Health Day



WORLD HEPATITIS DAY

JULY 28TH, 2016

Hepatitis is a term for inflammatory diseases of the liver, which range from mild and self-limited to severe, progressive forms leading to liver failure, cirrhosis, or hepatocellular carcinoma.

Viral hepatitis is most commonly caused by the hepatitis A, B and C (HAV, HBV, HCV) viruses, but it can also be caused by infection with hepatitis D&E virus. Delta hepatitis Virus (HDV) infection occurs only in individuals infected with HBV, causing a hepatitis “super infection.” HDV occurs in about 5% of people infected with HBV.

The severity of disease varies depending on the causative virus and genotype of that virus; the first step in diagnosing a hepatitis infection is to screen for the type of virus and when it was contracted using highly sensitive immunoassays against virus specific antibodies.

Hepatitis

	Hepatitis A	Hepatitis B	Hepatitis C	Hepatitis D	Hepatitis E
Incubation Period	14-45 days	60-180 days	14-180 days	30-180 days	15-60 days
Transmission	Fecal, oral, parenteral sexual	Parenteral sexual	Parenteral sexual	Fecal, oral, parenteral sexual	Fecal oral
Onset	Acute	Insidious	Insidious	Insidious	Acute
Chronic	No	Yes	Yes		Yes
Severity	Mild	Severe	Mild to severe	Severe	Severe in pregnant women
Vaccine	Yes	Yes	No	Yes - Hepatitis B vaccine!	No



HOW TO PROTECT YOURSELF FROM HEPATITIS

Hepatitis A & E

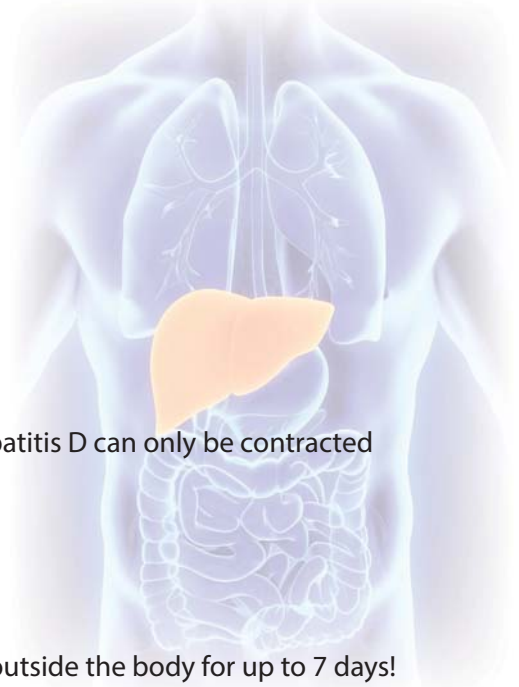
Hepatitis A Vaccine!

- Cook food well & eat it while still hot
- Avoid raw shellfish & raw meat
- Wash fruits & veggies in CLEAN water
- Wash your hands often
- Only drink SAFE water
- Safe sex practices

Hepatitis B, C & D

Hepatitis B Vaccine!

- If hepatitis B positive, take precaution not to contract hepatitis D. Hepatitis D can only be contracted when hepatitis B is present!
- Never share needles, razors or toothbrushes
- If pregnant, consult your doctor for prevention techniques
- Use only sterilized tattoo & piercing instruments
- Safe sex practices
- When possible, choose oral medications instead of injections
- Always take precaution when handling blood, as hepatitis B can live outside the body for up to 7 days!



DETECTION AND DIFFERENTIATION OF HEPATITIS

Hepatitis B

- Hepatitis B surface antigen (HBs Ag).....Marker of general infection
- Hepatitis B surface antibody (HBs Ab).....Marker of recovery/immunity to HBV
- Hepatitis B core IgM antibody (HBc IgM).....Marker of acute infection
- Hepatitis B core IgG antibody (HBc IgG).....Marker of past/chronic infection
- Hepatitis B envelope antigen (HBe Ag).....Marker of active virus replication
- Hepatitis B envelope antibody (HBe Ab).....Presence indicates that virus replication is no longer occurring
- HBV-DNA.....Presence indicates active virus replication

Hepatitis C

- HCV Ab.....Marker of general infection (do not appear until 4 weeks after infection)
- HCV-RNA.....Marker of active infection
- HCV Ag.....Marker of active infection

Hepatitis A and E are often difficult to distinguish, resulting in misdiagnosis of the higher risk hepatitis E!

According to WHO, there are 1.4 million new cases of HAV infection each year, and 20 million new cases of HEV.

HEV is under-diagnosed due to lack of awareness and diagnostic algorithms to implement HEV during initial screening for suspected hepatitis patients.

With similar clinical presentation as HAV, HEV has also traditionally been considered an acute, self-limiting disease. However, HEV is distinct from HAV in that it can become chronic, resulting in progressive hepatic injury and cirrhosis, manifestation outside of the liver, and fulminant hepatic failure. Chronic HEV has resulted in a 1-3% mortality rate that increases to 15-25% in pregnant women.

CTK's HEPATITIS PRODUCT RANGE

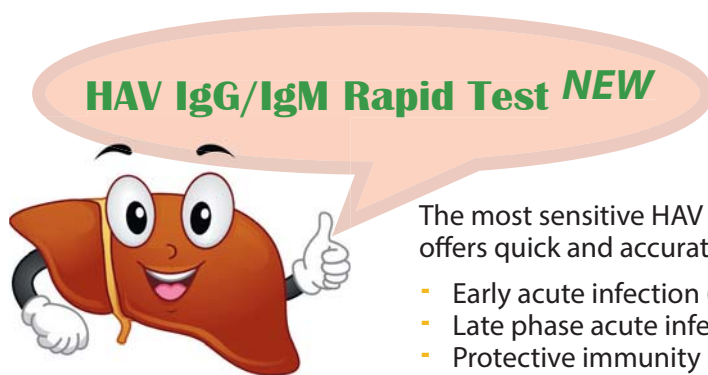
CTK's high quality, simplified diagnostic tools fits right into the key strategies of disease elimination
Fast, accurate, and early diagnostics for various forms of viral hepatitis

Rapid Tests

R0023C	HCV Ab Plus Rapid Test	S/P	24 M
R0023S	HCV Ab Plus Rapid Test (Strip)	S/P	24 M
R0024C	HCV Ab Plus Combo Rapid Test	S/P/WB	24 M
R0028C	HBsAg/HCV Ab Rapid Test	S/P/WB	24 M
R0040C	HBsAg Rapid Test	S/P	24 M
R0040S	HBsAg Rapid Test (Strip)	S/P	24 M
R0042C	HBsAg Combo Rapid Test	S/P/WB	24 M
R0049C	HBV-5 Rapid Test	S/P	18 M
R0090C	HAV IgM Rapid Test ^{CE}	S/P/WB	24 M
R0092C	HAV IgG/IgM Rapid Test ^{CE}	S/P/WB	24 M
R0095C	HEV IgM Rapid Test ^{CE}	S/P	24 M
R0096C	HEV IgG/IgM Rapid Test <i>coming soon</i>		

ELISA Tests

E0100	HAV IgM ELISA Test ^{CE}	S/P	12 M
E0105	HEV IgM ELISA Test ^{CE}	S/P	12 M
E0510	HCV IgG ELISA Test	S/P	12 M
E0511	HCV Ab ELISA Test	S/P	12 M
E0710	HBsAg ELISA Test	S/P	12 M
E0711	HBsAb ELISA Test	S/P	12 M
E0720	HBeAg ELISA Test	S/P	12 M
E0721	HBeAb ELISA Test	S/P	12 M
E0810	HBcAb ELISA Test	S/P	12 M
E0811	HBc IgM ELISA Test	S/P	12 M



The most sensitive HAV rapid test on the market! CTK's HAV IgG/IgM Rapid Test (R0092C) offers quick and accurate determination of Hepatitis A infection while differentiating:

- Early acute infection (IgM positive)
- Late phase acute infection (IgG and IgM positive)
- Protective immunity (IgG positive)

Features

Simple procedure; accurate results

- Indicates protective immunity by detecting HAV IgG titers ≥ 70 mIU/mL
- Single test for identifying acute infection and protective immunity by detecting IgG and IgM anti-HAV
- Initial action can begin during the patient's visit as test results are available in 15 minutes

Flexible

- Flexible specimen types including serum, plasma, or whole blood
- Easily transported, and can be stored for 24 months, at 2-30°C

Meet us

- AACC, USA, July 2016
- Medical Fair Asia, Sep 2016

CTK-MK-NLR-V8I12016 Rev1.0

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Reference:

1. <http://www.worldhepatitisalliance.org/>
2. <http://worldhepatitisday.org/en/about-us>
3. <http://www.who.int/topics/hepatitis/en/>