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A COMPLETE GUIDE in HEPATITIS TESTING & MANAGEMENT

HBV/ HCV Quantitative (Viral Load) by PCR, Plasma

- Highly sensitive and specific
- Recommended by WHO & CDC
- Evaluates viral load with response to antiviral treatment
- Can be used in conjunction with other serological assays
- Indicator of past or present infection
- Aid in optimal treatment management
- Limit of detection- HBV: 100 – 1010 IU/mL; HCV: 750 IU/mL

Algorithm for Viral Hepatitis

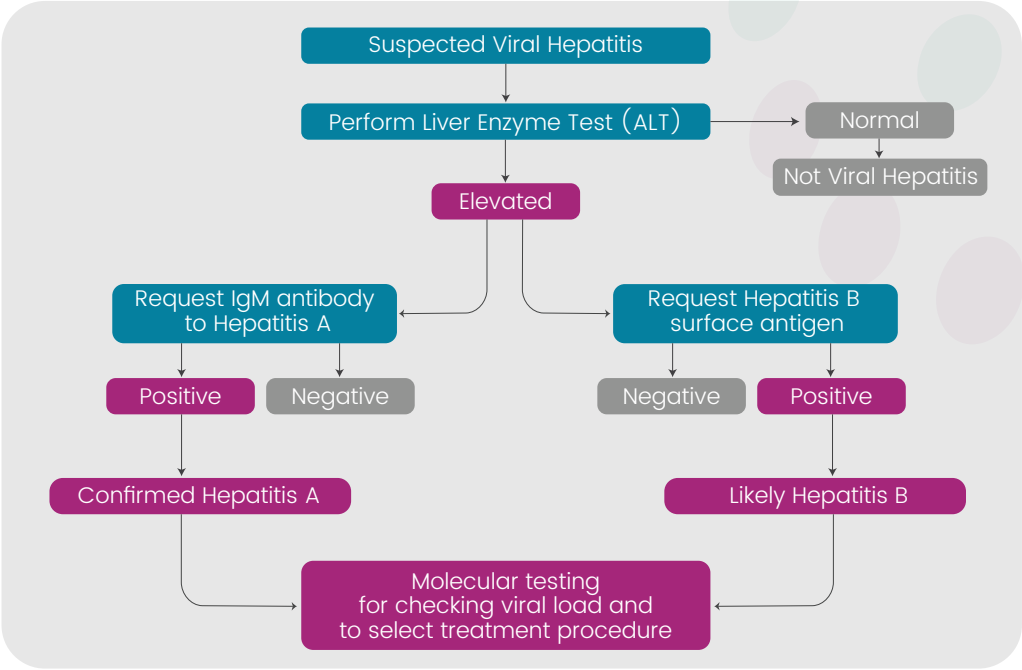

Image reference: Serological Testing for Suspected Viral Hepatitis, Summary of the Clinical Practice Guideline | January 2006

HCV Genotype Identification (6 genotypes) by RT-PCR, EDTA Whole Blood

Identification of the genotype is highly critical and improves the prognosis & treatment of infected individuals.

Specific detection of major HCV genotypes (HCV 1a, 1b, 2, 3, 4, 5 and 6)

Taqman probes which allow higher specificity and sensitivity

Helps in selecting treatment procedures and predicting treatment response

High-throughput and fast results in under one hour after start of PCR

Report Illustration

Name:	Ms. ID_DUMMY	Collected:	12-07-2022 10:00
Age:	26 Years	Received:	12-07-2022 16:02
Gender:	Female	Reported:	12-07-2022 17:37
CRM:	220894610004	Status:	Interim
Location:	CHENNAI	Sample Quality:	Adequate
Lab ID:	20700102401	Client:	For Lab Testing

HCV Genotyping RT- PCR, Plasma

RESULT:

TEST	Result
HCV by RT-PCR	Detected
HCV Genotype by RTPCR	HCV1a

METHODOLOGY:

The HCV RNA detection and genotyping through Taqman probes targeting conserved DNA sequences of 5' UTR region (Genotype 2, 3, 4, 5 and 6) and NS5b region (Genotype 1a and 1b) which detects through specific target binding probes and its amplification signals. The current probes enable detection of seven different genotypes of HCV simultaneously using four unique probes/fluorophores. The probes target the human RNaseP gene as an internal control for the RNA extraction quality and possible PCR inhibition control.

INTERPRETATION:

HCV genotyping RT-PCR assay identifies the Genotypes HCV 1a, HCV 1b, HCV 2, HCV 3, HCV 4, HCV 5 and HCV 6 in positive cases. This test should not be used for screening of blood or blood products or as a diagnostic test to confirm the presence of HCV infection.

CLINICAL NOTES:

Infection of hepatitis C virus (HCV) results in liver disease. Identifying HCV genotypes is essential for selecting treatment procedures and predicting treatment response. Within genotype 1, it is also important to determine whether the patient is subtype 1a or 1b, as Genotype 1 is more difficult to treat than Genotypes 2 & 3 and causes more severe liver disease. Varieties in genotypes and subtypes of HCV complicated the treatment of HCV infection.

Thus, the mortality attributable to HCV infection continues to increase. There are 7 HCV genotypes and more than 90 subtypes with diverse patterns of geographic distribution. Globally, proportions of HCV genotypes 1, 3, 2, 4, 6, and 5 are 46.2, 30.1, 9.1, 8.3, 5.4, and 0.8%, respectively. Identification of the HCV genotype and sub-genotype is crucial for a proper antiviral treatment and cure of HCV-infected individuals.

DISCLAIMER:

Sensitivity can be affected by specimen collection and the presence of interfering substances or any mutations in the targeted region of the probes. Results should be interpreted in conjunction with other available laboratory and clinical data. Incase HCV detected but no genotype target amplification was observed, it may not be in the coverage of the current assay. If clinical suspicion of HCV Infection remains, a repeat sample collection and testing is recommended for conventional Sanger Sequencing method for genotyping detection.

End Of Report

Test Ordering Information

Test Code	Test Name	Specimen Type	TAT
Hepatitis A			
H0008a	HAV Antibodies, Total, Serum	1ml serum in SST/ red top (no additive) tube	Daily by 6 pm; Report within 2 days
H0008c	HAV IgM Antibody, Serum		
H0008b	HAV IgG Antibody, Serum		
H0008	Hepatitis A Virus (HAV) Detection (Qualitative) RT-PCR, EDTA Whole Blood	3ml EDTA blood/ plasma in K2 EDTA (lavender Top) tube/ sterile container	
H0008d	Hepatitis A Virus (HAV) Viral Load (Quantitative) RT-PCR, EDTA Whole Blood		
Hepatitis B			
H0009a	Anti HBc IgM (Core Antibody), Serum	1ml serum in SST/ red top (no additive) tube	Daily by 6 pm; Report by next day
H0009h	Anti HBe (Envelope Antibody), Serum		
H0009j	Anti HBs (HBV Surface Antibody) Quantitative, Serum		Daily by 9 pm; Report same day
H0009f	Anti HBc Total (Core Antibody), Serum		
H0009d	HBsAg (Surface Antigen) Rapid, Serum		
H0009e	HBsAg (Surface Antigen) by CMIA, Serum		
H0009b	HBeAg (Envelope Antigen) by ELISA, Serum		Daily by 6 pm; Report by next day
H0009c	HBeAg (Envelope Antigen) by CMIA, Serum		
H0009k	HBsAg (Surface Antigen) (Quantitative), Serum		
H0009g	HBV DNA Qualitative by PCR, Plasma	3ml EDTA blood/ plasma in K2 EDTA (lavender top) tube/ sterile container	
H0009i	HBV Quantitative (Viral Load) by PCR, Plasma		
Hepatitis C			
H0010a	HCV Antibodies, Total, by CMIA, Serum	1ml serum in SST/ red top (no additive) tube	Daily by 6 pm; Report by next day
H0010c	HCV Antibody by Rapid Card, Serum		Daily by 9 pm; Report same day
H0010b	HCV RNA Quantitative by PCR, Plasma	1ml serum in K2 EDTA (lavender top) tube/ sterile container	Daily by 6 pm; Report by next day
H0010d	Hepatitis C Virus - HCV RNA Qualitative by PCR, Plasma	3ml EDTA blood/ plasma in K2 EDTA (lavender top) tube/ sterile container	
H0010i	Hepatitis C Virus by ELISA	3ml serum in SST/ red top (no additive) tube	
H0010g	Hepatitis C Virus IgG, Serum		
H0010f	Hepatitis C Virus - IgM Antibody, Serum		
H0006c	HCV Genotype Identification (6 genotypes) by RT-PCR, EDTA Whole Blood	3ml whole blood or 1ml plasma, EDTA in K2 EDTA (lavender top)	
HCVCOMBO	HCV COMBO (Viral Load + Genotyping), EDTA Whole Blood		
Hepatitis D			
H0031	Hepatitis D Virus (HDV) Detection (Qualitative) RT-PCR, Plasma/Serum	3ml EDTA blood/ plasma in K2 EDTA (lavender Top) tube/ sterile container	Daily by 6 pm; Report within 2 days
H0031d	Hepatitis D Virus (HDV) Viral Load (Quantitative) RT-PCR, Plasma/Serum		
Hepatitis E			
H0011a	Hepatitis E - IgG Antibody, Serum	1ml serum in SST/ red top (no additive) tube	Daily by 6 pm; Report within 3 days
H0011b	Hepatitis E - IgM Antibody, Serum		
H0011c	Hepatitis E - Total Antibodies, Serum		
H0011d	Hepatitis E Virus (HEV) Detection (Qualitative) RT-PCR, EDTA Whole Blood	3ml EDTA blood/ plasma in K2 EDTA (lavender Top) tube/ sterile container	Daily by 6 pm; Report within 2 days
H0011h	Hepatitis E Virus (HEV) Viral Load (Quantitative) RT-PCR, EDTA Whole Blood		

Name of Salesperson: ..... Contact: .....