

## **Evaluation of HEV RNA detection in an automated Real Time PCR system by two specialized laboratories in Greece.**

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**Introduction:** Hepatitis E virus (HEV) is a major cause of acute hepatitis, while the risk chronic infection exists among immunocompromised patients. The aim of this study was the evaluation of HEV-RNA detection and quantification on the Versant kPCR platform, Siemens which is widely used for Hepatitis B and C viral load measurement, in two specialized laboratories in southern and northern part of Greece.

**Materials and Methods:** 27 sera from patients suspected of HEV infection (26 chronic–1 acute) were included. 15 patients were liver transplant recipients, 11 had autoimmune liver diseases and one presented with acute hepatitis.

RNA was extracted by QIAamp Viral Mini kit (Qiagen, Hilden, Germany) or the Versant kPCR extraction system and HEV-RNA was detected by Real-Time RT-PCR (Clonit quantyHEV–kPCR, Siemens) according to manufactures' instructions.

**Results:** In three different runs the calibrator curves met all quality control criteria demonstrating compatibility of reagents with the instrument. Positive HEV-RNA was detected in 2 of 27 patients (7.4%), one in each laboratory. One was 60-year-old male liver transplant due to alcoholic cirrhosis, while the second was a male with recent travel to India; both were characterized as acute HEV infections.

**Conclusion:** Hepatitis E is considered an emerging disease that may be a threat in both developing and industrialized countries all over the world. This is the reason why there is a great need for robust and accurate HEV methods. The Clonit HEV test on the Versant kPCR system showed repeatable good performance and reliable results in two different laboratories.