ORIGINAL ARTICLE

Screening of Blood Donations by Hepatitis C Virus Polymerase Chain Reaction (HCV-PCR) Improves Safety of Blood Products by Window Period Reduction

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SUMMARY

Introduction of the nucleic acid amplification technique (NAT) as a screening test for blood donors to detect HCV RNA became mandatory on 1 April 1999. Few automated commercial systems are available for HCV RNA detection at the moment. The Cobas Amplicor HCV 2.0 System is able to perform fully automated amplification and detection of nucleic acids. A concentration of 98 IU HCV RNA/ml can be detected by the Cobas Amplicor HCV 2.0 System (n = 233, in 100 % of the cases). With a pool size of 40 donor samples, the guidelines of the Paul-Ehrlich-Institute concerning sensitivity (5,000 IU HCV RNA per mL in a single donation) were followed. One whole blood donation was identified as HCV-RNA positive (anti-HCV IgG negative, GPT < 30 U/L) during a period of 5 months. No false positive test results could be observed. The internal control and the run control are primarily helpful to monitor methodological problems. (Clin. Lab. 2001;47:219-222)