

Blood donor screening for hepatitis E reveals incidence is higher than previously reported

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Results from a study presented today found that the incidence of HEV RNA in asymptomatic blood donors from Germany is higher than previously reported. The study, presented at The International Liver Congress 2017 in Amsterdam, The Netherlands, showed that 0.11% of donations tested were HEV RNA positive (15 out of 13,441 donors) and that one of the asymptomatic HEV RNA positive donors had previously donated HEV RNA positive blood products, which were then transfused into nine immunocompromised patients. Screening for HEV RNA at blood donation centres has been debated in recent years but is not compulsory as yet.

There are an estimated 20 million new infections with HEV worldwide every year. However, HEV [infection](#) is often asymptomatic and will usually clear within two to six weeks.¹ HEV infection can persist in [immunocompromised](#) individuals,² leading to development of liver cirrhosis or liver failure.^{3,4} For this reason there have been calls to introduce routine HEV RNA [screening](#) of blood donations.

"We identified a higher percentage of HEV RNA donors in our study cohort than has previously been reported in Germany," said Dirk Westhölter, University Hospital Hamburg-Eppendorf, Germany, and lead author of the study. "Since HEV infection can have serious consequences among the immunocompromised and a single positive [donor](#) can give rise to HEV infection in several other [patients](#), there is a need for longer term studies to analyse the effectiveness of routine HEV blood donor screening, and to determine whether this process should be

implemented at blood clinics everywhere."

Blood donations (n=13,441) at the University Hospital Hamburg-Eppendorf were tested from October 2016. Pools of 24 donations were screened using an HEV PCR assay, with reactive pools tested individually to identify HEV RNA positive donors.

Out of 15 HEV RNA positive donors identified, 14 were healthy and asymptomatic and one presented with acute self-limiting hepatitis. Of the asymptomatic donors, one had been HEV RNA positive for over three months and had donated blood products prior to this screening, which had then been transfused into nine immunocompromised patients. Interestingly, eight of these patients did not go on to develop Hepatitis E, and only one patient had detectable serum HEV RNA before death due to acute-on-chronic liver failure complicated by pseudomonas sepsis.

"The proportion of HEV RNA positive donors found in this study is higher than previously reported and quite worrisome. Given the suboptimal, inconsistent sensitivity of commercially available anti-HEV antibody assays, and in view of the serious consequences that may occur in immunocompromised recipients, screening for HEV RNA of [blood](#) donor minipools should be discussed promptly," said Prof Francesco Negro, Divisions of Gastroenterology and Hepatology of Clinical Pathology, University Hospital of Geneva, Switzerland and EASL Governing Board Member.

More information: Abstract: Blood-borne HEV transmission: first experience with global HEV screening at a tertiary center (PS110), The International Liver Congress 2017.

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