

INTRODUCTION OF HBV NAT SCREENING ON BLOOD DONATION IN ITALY AND IDENTIFICATION OF HBV OCCULT INFECTION CASES (P-282)

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From September 2005 NAT test for HBV-DNA was implemented in the screening of blood donations in our blood bank. HBV-DNA was performed with PROCLEIX® ULTRIO® Assay on PROCLEIX® TIGRIS System in single sample units. We tested 22591 blood donations for HBV-DNA, HCV-RNA and HIV-RNA. 55 units resulted initially reactive with PROCLEIX ULTRIO Assay. Four cases were first time donors carriers of HBsAg, HBV discriminant was confirmed positive; one case was a first time donor anti-HCV positive with confirmed HCV discriminant test; one case was a repeat donor with a new HIV infection positive also for anti-HIV and for the HIV discriminant. The other 49 cases were negative for HBsAg, anti-HCV and anti-HIV. In 44 of these samples ULTRIO turned out negative when retested in duplicate as well as discriminant assays. 5 cases were confirmed to be positive at least once when retested in duplicate with ULTRIO and were all HBV-DNA positive at the discriminant assay. All these 5 samples resulted to be anti-HBc+. Characteristics of these samples are listed in table 1. No HBV early window-phase was found. The prevalence of HBV viremic units among blood units otherwise transfusable is in our region of 0.022% or 1 in 4518 donated units or 220 in 1 million of donated units. HBV occult infection represent a major risk factor compared to early window-phase (estimate:15,8 units in 1 million of donated units) in our country. We are now going through sequencing of these viruses to establish whether or not these are HBV preS-S region mutants.

Table 1. Characteristics of HBV-DNA+ blood donors

Donor	HBsAg	Anti-HBs	Anti-HBc	HBeAg	Anti-HBe
1	Neg	Neg	POS	Neg	Neg
2	Neg	POS	POS	Neg	Neg
3	Neg	Neg	POS	Neg	POS
4	Neg	POS	POS	Neg	Neg
5	Neg	Neg	POS	Neg	Neg