

BENEFITS OF THE TEST CHIRON PROCLEIX ULTRIO ASSAY HCV/HIV/ HBV IN THE IMPROVEMENT OF BLOOD SAFETY (P-129)

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Background: Our laboratory collects all blood samples for NAT screening from donations gathered in the 11 Immunotransfusal Services of the Province of Naples. Moreover all samples of the donations coming from the S.I.T. of A.O.R.N. 'A. Cardarelli', are screened with the entire serological tests mandatory for law.

Aim: The aim of the study is a statistical evaluation of the serological tests and the NAT test for those screenings performed in 2005, and in particular for those referring to the SIT AORN 'A. Cardarelli'.

Materials: 78967 samples will be considered in this study, on all of these the test NAT was performed. On 33082 of these samples, referring to the SIT A.O.R.N 'A. Cardarelli', the serological tests were performed as well. The CHIRON PROCLEIX[®] ULTRIO[®] ASSAY HCV/HIV/HBV NAT test was used, on a single sample, instead the Ortho Vitros Eci system and the Abbott AxSYM system were used for the serological test HbsAg, HCV Ab, and HIV Ab.

Results: 404 of the 78967 samples were positive for the NAT test and 292 of these were from our SIT A.O.R.N 'A. Cardarelli'. Comparing the serological results with the molecular biology tests results of those 292 donors that were NAT positive: 130 samples were HBV DNA positive and HbsAg positive, all occasional donors; 8 samples were HBV DNA positive but HbsAg negative, 6 occasional donors and 2 periodic donors; 44 were HCV RNA positive and HCV Ab positive, all occasional donors, 1 sample of a periodic donor was HCV RNA positive with a non determined confirmation test, that became positive later on, another sample from a periodic donor that was HCV RNA positive with no HCV Ab. This last donor resulted a seroconversion at follow up. At last 8 samples from occasional donors were HIV RNA positive and HIV Ab positive. The average age of the donors positive for HBV DNA was 39 years, with a prevalence of male donors (108/138) and 125 were Italian whereas 13 were non-European. The donors positive for HCV RNA belonged to an age group from 55 to 61 years, 38 were male, the rest were female, 37 were Italian whereas 9 were non-European. The 8 donors HIV RNA positive belonged to an age group from 25 to 29 years, only one was non-European and they were all males.

Conclusions: The analysis of these data show that the introduction of the NAT tests ULTRIO has contributed considerably to reduce the transfusional risk. In fact it was possible to detect 8 donors, two of which periodic, that were HBV DNA positive and no antigenemia. Moreover a periodic donor was detected in window period of the hepatitis C.