

SIGNIFICANCE OF CONFIRMATORY TESTING OF BLOOD DONORS WITH POSITIVE SCREENING FINDINGS FOR ANTI-HIV AND ANTI-HCV

A. Mendez, A. Rüfer and B.M Frey

Stiftung Zürcher Blutspendedienst SRK, 8001 Zürich

www.zhbsd.ch

Background: By law, blood donors are screened for anti-HIV and anti-HCV antibodies on each blood donation. Positive screening findings need to be confirmed by alternative (confirmatory) tests to prevent inaccurate diagnosis and to assure correct donor counselling.

Methods: Retrospectively, we investigated over time blood donors with positive screening findings of anti-HIV/HCV and not-negative confirmatory testing (excluding donors with positive confirmatory testing) in terms of prevalence, sex distribution, surrogate marker findings and seroconversion. Screening/confirmatory tests for HIV and HCV were performed by using Murex HIV-1.2.0 Abbott / HIV Blot 2.2 genelabs from Abbott and HCV 3.0 ELISA Ortho / HCV RIBA 3.0 Immunnoblot from Ortho, resp.

Results: Over a 6 9/12 years period (January 1997 to October 2003) for HIV and over a 7 9/12 years period (January 1996 to October 2003) for HCV, 118 donors with not-negative HIV confirmatory test result (nnHIV) and 60 donors with not-negative HCV confirmatory test result (nnHCV) were observed. 65 (55%) of nnHIV donors and 27 (45%) of nnHCV donors followed the invitation for follow-up testing and constituted the study population. The main findings are summarized in the table.

Table:

Blood donors' characteristics with not-negative findings for HIV and HCV

	HIV	HCV	p
No of followed not-negative (nn) donors	65	27	
Prevalence of (nn) donors per 100'000 donations	26	13	0.01
Sex predomination (%male)	69%	74%	n.s
Time interval 1 st /2 nd confirmatory test (CT) (mean days, range)	203 (18 – 2919)	280 (10 – 2373)	n.s
2 nd screening test (2 nd ST) negative	54%	43%	n.s
2 nd ST positive	46%	57%	n.s
2 nd CT negative	32%	22%	n.s
2 nd CT not-negative	68%	78%	n.s
2 nd CT positive	0%	0%	

Conclusions: 1. Only 50% of blood donors with ambiguous test findings are willing for additional testing at the same institution. 2. Over time, 20% - 30% of donors clear their ambiguous test findings and can be reinstated as blood donors. 3. Positive conversion of donors with ambiguous test findings in either parameter have not been observed. 4. Ambiguity on blood donor screening for HIV/HCV constitutes a challenge for donor counselling but does not justify to stigmatize blood donors. 5. An extended test interval of 12 to 24 months between 1st and 2nd testing is recommended.