

References

1. CDC. Provisional public health services inter-agency recommendations for screening donated blood and plasma for antibody to the virus causing acquired immunodeficiency syndrome. MMWR January 11, 1985; 34: 1-5.
2. Leitman SF, et al. Clinical implications of positive tests for antibodies to Human Immunodeficiency Virus Type I in asymptomatic blood donors. NEJM 1989; 321: 917-24.
3. Although the manufacturers of WB tests make no formal claim that their tests can be used to exclude infection (because a person may have been recently infected and therefore not developed the necessary antibody response to score positive; i.e., seroconversion), it was, and still is, used for that purpose. In fact, the CDC would come to formally endorse the use of WB for this purpose in 1989 (see ref. below) In routine practice, and depending on the screening assay used, anywhere from about 1/300 to 1/1000 donated blood samples will score repeatedly reactive on screening with ELISA. Given that there are approximately 15 million units of blood donated in the US annually, this would correspond to 15,000 to 45,000 positive screening results annually. Depending on the collection site, follow-up WB testing will reveal 90-99% of these results to be false-positives. Unfortunately, about a third of these false-positives will initially score “indeterminate” on WB, which requires the patient to be retested in 1-3 months in order to confirm that their initial result was not representative of seroconversion. If their follow-up sample scores either negative on ELISA, or positive on ELISA but negative or again indeterminate (“persistently indeterminate”) on WB, the patient can be “reassured that they are almost certainly not infected.” (CDC. MMWR July 21, 1989; 38/S-7:1-7.)
4. The Consortium for Retrovirus Serology Standardization. Serological diagnosis of Human Immunodeficiency Virus infection by Western blot testing. JAMA 1988; 260: 674-9.
5. CDC. Revision of the CDC surveillance case definition for Acquired Immunodeficiency Syndrome. MMWR (Supplement) August 14, 1987; 36/No. 1S: 1-15S.
6. Center for Infectious Disease, Centers for Disease Control. AIDS weekly surveillance report – United States AIDS program. December 28, 1987.
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8. Kleinman S, et al. False-positive HIV-1 test results in a low-risk screening setting of voluntary blood donation. JAMA 1998; 280: 1080-5.
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10. Bukrinsky MI, et al. Reactivity to gag- and env-related proteins in immunoblot

assay is not necessarily indicative of HIV infection. AIDS 1988; 2: 405-406. ([Abstract](#))

11. Healey DS and Bolton WV. Apparent HIV-1 glycoprotein reactivity on Western blot in uninfected blood donors. AIDS 1993; 7: 655-8. (Abstract)

12. Dodd RY and Stramer SL. Indeterminate results in blood donor testing: What you don't know can hurt you. Transfus Med Rev 2000; 14: 151-60.