

HIV-CHEK SYSTEM: A RAPID TEST FOR THE DETECTION OF HIV-ANTIBODIES

Pages with reference to book, From 256 To 256

Madam,

We evaluated the sensitivity and specificity of DuPont's HIV- CHEK System for the detection of antibodies against human immunodeficiency virus (HIV). HIV-CHEK is a rapid and simple test¹ as compared with the existing ELISA HIV- antibody techniques². Dupont's HIV-CHEK uses recombinant HIV antigen which is adsorbed on a porous membrane. The HIV antibodies are captured by this antigen, presence of the antibodies is indicated by treatment with a protein A-gold conjugate and forms a red coloured-spot on the membrane. There is no real spot formation if the sample is negative for HIV antibodies. A total of 210 sera were tested; 150 negative and 60 HIV-antibody positive (positive on Western Blot). Of the total 210 samples in 16(7.6%) the serum was not absorbed through the porous material. All the negative samples were negative on HIV-CHEK i.e., there was no false positive. However in the panel of positive sera HIV-CHEK failed to detect two samples (3.5%). Hence the sensitivity and specificity of the DuPont HIV-CHEK was 96.4% and 100% respectively. Well these are not bad scores for such a simple, rapid and visually read procedure. The problem which we faced was the non-absorbance of serum through the porous membrane (in 7.6% of cases). This maybe due to the fact that most of our samples were frozen specimen. We disagree with the manufacturer for not shaking the frozen samples. We believe that all the frozen samples must be properly mixed before use. We feel that the HIV-CHEK system may be of good value in screening of fresh blood specimens (as the absorbance of serum through the porous material is not disturbed to a significant extent) at places where instruments for ELISA are not available and quick results are desired.

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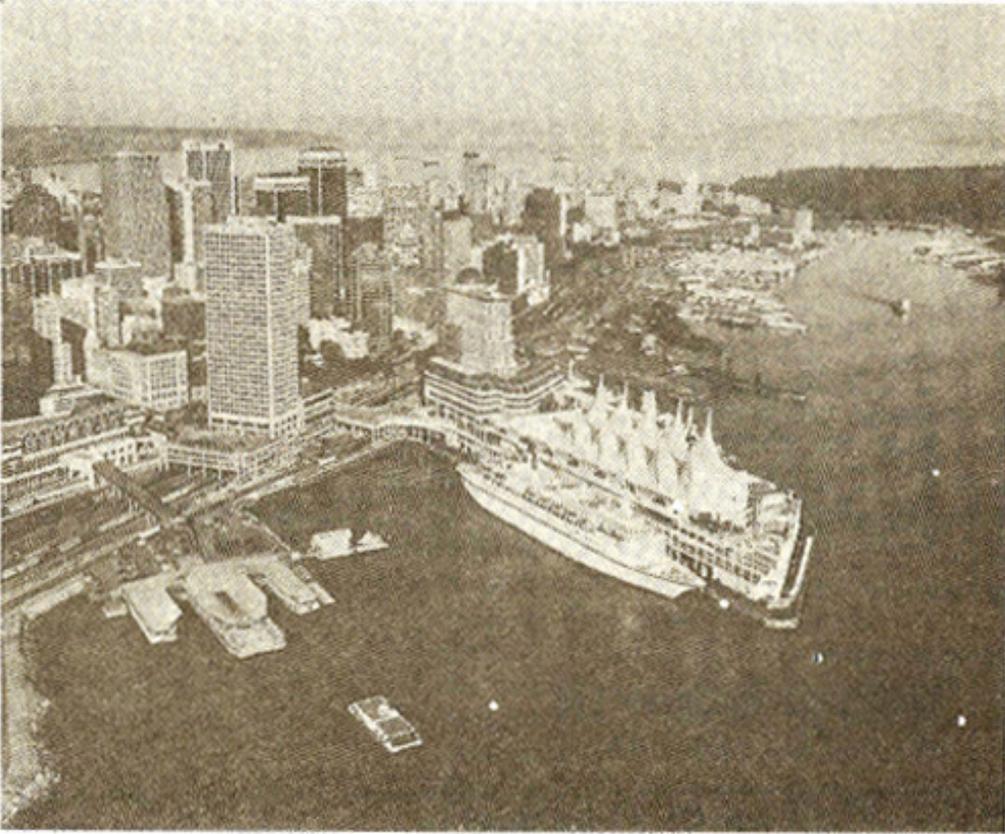
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HIV-CHEK together with gelatin particle agglutination (Fujirebio) may solve our problem of screening the blood samples in the blood banks and in field testing³.

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