For those without antibody reactivity, a sample was taken in EDTA for molecular biology. (RT-PCR Taranes Hyderabad C Virus Test V 2.0, Roche).

Results: Out of 26,004 donors studied in the analysis period, 49 (0.19%) were reactive for HIV screening, 38 of whom attended the summons. Seventeen samples (44.9%) were repeatedly reactive to EIA HCV Ag/Ac (the screening Rp 4.1 ± 1.2) with anti-HCV reactive. Six samples (16%) were non-reactive in the second sample (the screening Rp 1.1 ± 0.2). Fifteen samples (39.5%) repeatedly reactive to EIA values HCV Ag/Ac (the screening Rp 1.8 ± 0.8) with anti HCV non-reactive, these samples were carried out RT-PCR to detect viral genetic material and all were negative as well as the detection of Ag by CMIA.

Conclusions: (i) High values of Rp in the screening (Rp 4.3 ± 1.3), confirmed in the second sample holding similar values of Rp (Rp 4.1 ± 1.5). (ii) Low values of Rp in the screening (Rp 1.1 ± 0.2), become negative in the second sample (Rp 0.6 ± 0.2), representing a 16% false positives. (iii) Intermediate values in the screening Rp (Rp 1.8 ± 0.8) persist repeatedly reactive for EIA HCV Ag/Ab without the presence of Ag and Ab in the second sample. These blood donors were following. (iv) There was agreement between Ag/HCV CIMA and HIV RT-PCR. We conclude that while 0.09% were discarded blood bags in this period by false positive results in HIV EIA, the screening method, we are facing a diagnostic method of good sensitivity, important for the study of blood bank donors.

4.4 HIV

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RISK FACTORS FOR HIV IN BRAZILIAN BLOOD DONORS – A PRELIMINARY ANALYSIS
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Background: Although risk factors for HIV infection are known, it is important for blood centers to understand local epidemiology and disease transmission patterns in order to reduce the risk of transfusion-transmitted infection through appropriate testing and donor selection. Multicenter studies of HIV risk factors in Brazilian blood donors have not been reported.

Aims: To assess risk factors for HIV infection in blood donors in Brazil.

Methods: A case-control study was conducted at four large public blood centers in Brazil located in major cities (Sao Paulo, Rio de Janeiro, Recife, and Belo Horizonte) during the time period of March 2009–March 2011. Cases were persons whose donations were confirmed positive by dual serological assays followed by Western Blot. They completed the risk factor interview following return to the blood center for notification and counseling. Controls were asked to complete the interview after donation, and were excluded from the study if donation testing was positive for any mandatory screening test. Audio computer-assisted self-interview (ACASI) surveys using touch-screen computers with keyboards and earphones for privacy were completed by all cases and controls. Stepwise multivariable logistic regression was used to estimate odds ratios (ORs) for disclosed HIV risk factors and associated 95% confidence intervals (CIs). Candidate predictor variables were entered into the statistical model if P < 0.2 and retained if P < 0.05. In addition to behavioral risk factors sex, age, marital status, education level, first time donor, and community or replacement donor status were included as candidate predictors. The main effects estimates are reported.

Results: Three hundred and forty-one cases and 791 controls completed all study procedures. Eighty-three percent of cases vs 70% of controls were male, and 5% of cases vs 25% of controls were first time donors. Being male was associated with a higher risk of infection (OR = 2.0, 95% CI 1.3–3.1). After controlling for donor demographic characteristics, the behavioral risk factors associated with HIV infection (shown in table) were being a sex partner of a man who has sex with other men (MSM) (OR = 20.6, 95% CI 9.4–44.5), having sex with an HIV+ positive partner (OR = 9.4, 95% CI 3.5–24.8), having unprotected sex with a new or unknown sex partner (OR = 8.8, 95% CI 2.8–27.9), defining one’s sexual orientation as bisexual compared to heterosexual (OR = 6.0, 95% CI 2.1–16.9), or reporting an IDU or being a sex partner of an IDU (OR = 4.1, 95% CI 1.6–10.3). Note that defining one’s sexual orientation as gay/homosexual compared to heterosexual was not significantly associated with HIV infection. Overall, 7% of cases did not disclose any potential risk factor.

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