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COMPARISON OF DiaSorin LIAISON® AND ABBOTT AXSYM IMMUNOASSAY SYSTEMS FOR HEPATITIS B ASSAY

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Introduction. A complete immunoassay panel for detection of hepatitis B virus infection markers in human serum and plasma is available on DiaSorin LIAISON® analyzer. Aim of the present study was to compare the performance of two automated immunoassay systems for hepatitis B virus immunoassay in random specimens sent to the laboratory for HBV testing.

Methods. 223 specimens assayed by Abbott's AxSYM were tested with DiaSorin fully automated LIAISON® chemiluminescent immunoassay analyzer for six hepatitis B virus markers, i.e., hepatitis B surface antigen (HBsAg), antibodies to hepatitis B surface antigen (anti-HBs), IgM and IgG antibodies to hepatitis B core antigen (total anti-HBc), IgM antibodies to hepatitis B core antigen (anti-HBc IgM), hepatitis B e antigen (HBeAg), antibodies to hepatitis B e antigen (anti-HBe).

DiaSorin LIAISON® assays employ paramagnetic microparticle separation technology and an isoluminol derivative as chemiluminescent tracer. All assays are fully automated, require sample volumes ranging from 20 to 150 µL and have throughputs of up to 180 tests per hour.

Results. LIAISON® HBV performance resulted in an overall agreement with AxSYM > 99%, i.e., 100% for HBsAg assay, 99.1% for total anti-HBc, 99.5% for anti-HBc IgM, 100% for HBeAg, 100% for anti-HBe, 99.5% for anti-HBs. Regression analysis of results from 40 samples positive for anti-HBs shows good correlation for LIAISON® Anti-HBs as compared with AxSYM ($y = 1.044 x$, $r = 0.924$).

Conclusion. These data indicate that LIAISON® HBV assays show equivalent performance with currently marketed automated immunoassays.
