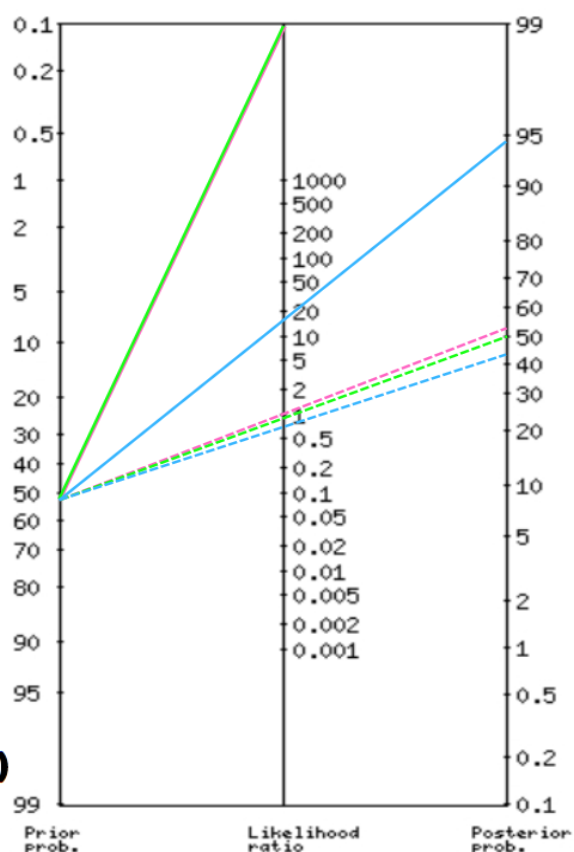
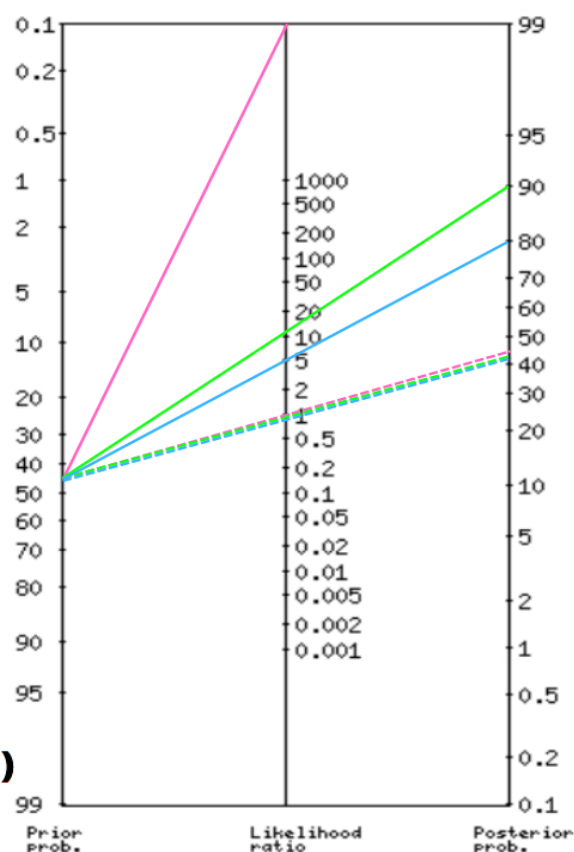


PWH - G1+G2vsG3+G4



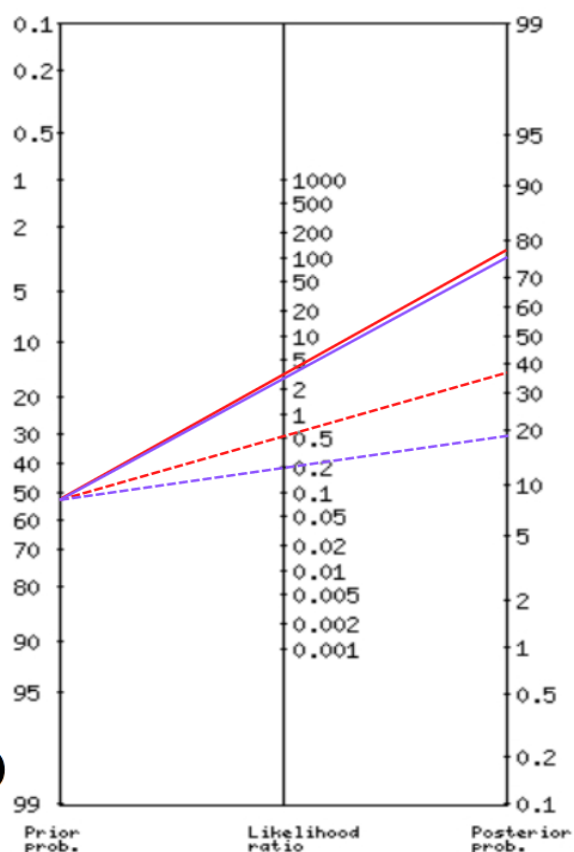
A)

PWoH - G1+G2vsG3+G5



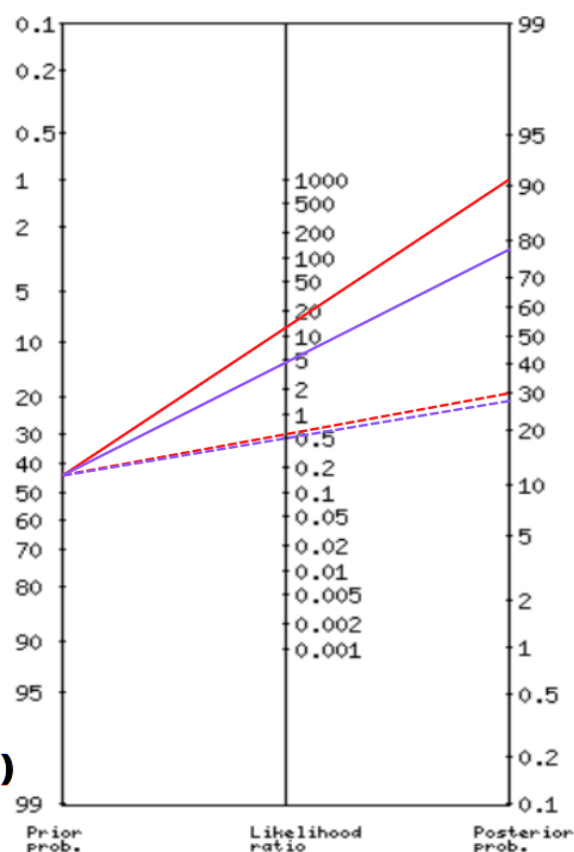
B)

PWH - G1+G2vsG3+G4



C)

PWoH - G1+G2vsG3+G5



D)

Supplementary Figure 1. Fagan's Nomograms of CSF total protein or CSF WBC, as single tests, with different cutoffs points, to calculate the posterior probability for a positive and for a negative test to diagnose confirmed or presumptive neurosyphilis in PWH and PWOH.

Positive tests are represented by a solid line, and negative tests are represented by a dashed line. PWH: people with HIV; PWOH: people without HIV; G1: confirmed NS; G2: presumptive NS; G3: systemic syphilis; G4: PWH without SS and/or NS; G5: negative control; Odds=Probability/(1 - Probability); Posterior odds: Prior odds $\times$ LR; LR: likelihood ratio; +LR = Sensitivity / (1 - specificity); LR- = (1 - sensitivity) / specificity.

For PWH (G1+G2 vs. G3+G4) the prior probability was 58% (1.4), while PWOH (G1+G2 vs. G3+G5) was 46% (0.8).

(A) For PWH, for CSF WBC >5 cells/mm³ (blue line), for positive test: LR+ 13 (95% CI 1.82–90), posterior probability (odds) 95% (18.3) (95% CI 72–99), around 1 in 1.1 with positive test had confirmed or presumptive NS; for negative test: LR- 0.55 (95% CI 0.40–0.75), posterior odds 44% (0.8) 95% CI 36–51, around 1 in 1.8 with negative test were not with confirmed or presumptive NS. For CSF WBC >10 cells/mm³ (green line), for a positive test: LR+ infinite (95% CI 1.01–269), odds 100% (1407403.8) (95% CI 59–100), around 1 in 1.0 with positive test had confirmed or presumptive NS; for a negative test: LR- 0.71 (95% CI 0.58–0.88), posterior odds 50% (1.0) (95% CI 45–55), around 1 in 2.0 with negative test were not with confirmed or presumptive NS. For CSF WBC >20 cells/mm³ (pink line), for a positive test: LR+ infinite (95% CI 0.73–203), odds 100% (1407403.8) (95% CI 51–100), around 1 in 1.0 with positive test had confirmed or presumptive NS; for a negative test: LR- 0.79 (95% CI 0.67–0.95), odds 53% (1.1) (95% CI 49–57), around 1 in 2.1 with negative test were not with confirmed or presumptive NS.

(B) For PWOH, for CSF WBC >5 cells/mm³ (blue line), for positive test: LR+ 5.17 (95% CI 1.53–17), posterior odds 81% (4.3) (95% CI 56–93), around 1 in 1.2 with positive test had confirmed or presumptive NS; for negative test: LR- 0.86 (95% CI 0.77–0.96), posterior odds 42% (0.7) 95% CI 39–45, around 1 in 1.7 with negative test were not with confirmed or presumptive NS. For CSF WBC >10 cells/mm³ (green line), for a positive test: LR+ 11 (95% CI 1.39–83), posterior odds 90% (9.2) (95% CI 54–99), around 1 in 1.1 with positive test had confirmed or presumptive NS; for a negative test: LR- 0.89 (95% CI 0.82–0.97), posterior odds 43% (0.7) (95% CI 41–45), around 1 in 1.7 with negative test were not with confirmed or presumptive NS. For CSF WBC >20 cells/mm³ (pink line), for a positive test: LR+ infinite (95% CI 0.59–196), posterior odds 100% (838707.7) (95% CI 33–100), around 1 in 1.0 with positive test had confirmed or presumptive NS; for a negative test: LR- 0.95 (95% CI 0.90–1.00), posterior odds 44% (0.8) (95% CI 43–46), around 1 in 1.8 with negative test were not with confirmed or presumptive NS.

(C) For PWH, for CSF total protein >45 mg/dL (red line), for positive test: LR+ 2.40 (95% CI 1.30–4.44), posterior odds 77% (3.4) (95% CI 65–86), around 1 in 1.3 with positive test had confirmed or presumptive NS; for the negative test: LR- 0.41 (95% CI 0.24–0.72), posterior odds 37% (0.6) (95% CI 25–50), around 1 in 1.6 with negative test were not with confirmed or presumptive NS. For CSF total protein >39 mg/dL (purple line), for positive test: LR+ 2.64 (95% CI 1.52–4.56), posterior odds 76% (3.2) (95% CI

65–85), around 1 in 1.3 with positive test had confirmed or presumptive NS; DOR negative test: LR- 0.18 (95% CI 0.07–0.47), posterior odds 18% (0.2) (95% CI 8–36), around 1 in 1.2 with negative test were not with confirmed or presumptive NS.

(D) For PWoH, for CSF total protein >45 mg/dL (red line), for positive test: LR+ 12 (95% CI 4.58–33), posterior odds 91% (10.1) (95% CI 79–97), around 1 in 1.1 with positive test had confirmed or presumptive NS; for the negative test: LR- 0.50 (95% CI 0.39–0.63), posterior odds 30% (0.4) (95% CI 25–35), around 1 in 1.4 with negative test were not with confirmed or presumptive NS. For CSF total protein >39 mg/dL (purple line), for positive test: LR+ 4.17 (95% CI 2.50–6.96), odds 78% (3.5) (95% CI 68–85), around 1 in 1.3 with positive test had NS confirmed; for negative test: LR- 0.44 (95% CI 0.32–0.59), odds 27% (0.4) (95% CI 21–33), around 1 in 1.4 with negative test were not with confirmed or presumptive NS.