Stoler et al. Cervical Tissue Adjunctive Analysis (CERTAIN) study

**Supplemental Table S4**

**PLR, NLR, PPV, NPV, relative PLR and NLR, and differences in PPV and NPV in Round 1 (ISPH&E) and Round 2 (ISPH&E+p16) using (A) CPRH&E and (B) CPRH&E+p16, respectively, as the reference diagnoses at the CIN2+/CIN1- cutoff**

(A)

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| --- | --- | --- | --- | --- | --- |
| End-point [a] | ISPH&E vs CPRH&E Point Estimate (95% CI) | ISPH&E+p16 vs CPRH&E Point Estimate (95% CI) | Statistic for Comparison [b] | Point Estimate (95% CI) | *P*-value [c] |
| PLR | 8.73 (7.82, 9.76) | 10.96 (9.53, 12.79) | Relative PLR: | 1.26 (1.13, 1.41) | 0.0003 |
| NLR | 0.18 (0.15, 0.22) | 0.11 (0.08, 0.14) | Relative NLR: | 0.58 (0.49, 0.68) | <.0001 |
| PPV | 61.0% (56.2%, 65.2%) | 66.2% (61.2%, 70.9%) | Difference PPV: | 5.3% (2.9%, 7.9%) | <.0001 |
| NPV | 96.8% (96.0%, 97.6%) | 98.1% (97.5%, 98.7%) | Difference NPV: | 1.3% (0.9%, 1.7%) | <.0001 |

**(B)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| End-point [a] | ISPH&E vs CPRH&E+p16  Point Estimate  (95% CI) | | ISPH&E+p16 vs CPRH&E+p16 Point Estimate  (95% CI) | Statistic for Comparison [b] | Point Estimate (95% CI) | *P*-value [c] |
| PLR | 9.43 (8.37, 10.68) | 17.66 (15.03, 21.27) | | Relative PLR: | 1.87 (1.64, 2.17) | <.0001 |
| NLR | 0.29 (0.25, 0.33) | 0.16 (0.13, 0.19) | | Relative NLR: | 0.55 (0.51, 0.60) | <.0001 |
| PPV | 70.0% (65.7%, 73.9%) | 81.4% (77.8%, 84.8%) | | Difference PPV: | 11.4% (9.0%, 13.9%) | <.0001 |
| NPV | 93.3% (92.1%, 94.5%) | 96.2% (95.4%, 96.9%) | | Difference NPV: | 2.9% (2.3%, 3.5%) | <.0001 |

PLR/NLR, positive/negative likelihood ratios; PPV/NPV, positive/negative predictive values; ISP, Individual Surgical Pathologist; CPR, Central Pathology Review; CI, confidence interval. [a] Likelihood ratios and predictive values were calculated from the reader-specific point estimates for PPA (positive percent agreement) and NPA (negative percent agreement) determined by percentile bootstrapping. [b] Relative PLR and relative NLR were calculated for (A) as the ISPH&E+p16 vs. CPRH&E point estimates, divided by the ISPH&E vs. CPRH&E point estimates, and for (B) as the ISPH&E+p16 vs. CPRH&E+p16 point estimates, divided by the ISPH&E vs. CPRH&E+p16 point estimates; difference PPV and difference NPV were calculated as the Round 2 (ISPH&E+P16) point estimates minus the Round 1 (ISPH&E) point estimates, respectively. [c] For relative PLR and NLR, *P*-values are two-sided comparing with a value of 1; for difference PPV and difference NPV, *P*-values are two-sided comparing with a value of 0.