**Appendix Table E40. Results from studies assessing the ability of VerifyNow to predict other clinical events in patients with cerebrovascular disease**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author,year**  **UID**  **Country**  **Study name** | **Treatment** | **Phenotypic Test Used [index test]** | **Clinical Outcome** | **Outcome Definition** | **Timing of measurement** | **Index test result: category (e.g., HPR+) – ONE ROW PER PHENOTYPE GROUP** | **Outcome status (e.g., bleeding or no bleeding)** | **No. with outcome status within phenotype group** | **Comparative metric (OR, RR, HR)** | **95% CI** | **P (between which groups?)**  **[statistical test]** | **Adjusted?**  **[YES/NO/NR]**  **If YES, for what factors?** | **Procedures for multiple comparisons [YES, NO, NR]** | **Comments (e.g., additional data in figures)** |
| Drazin, 2011{Drazin, 2011 238 /id}  21990814  US  NR | Clopidogrel+aspirin | VerifyNow | Intraprocedural thrombosis | NR | Intraprocedural | Suboptimal response | Yes event | 1 (2%) | NR | NR | NR | NR | NR | NONE |
|  |  |  |  |  |  | Optimal response |  | 0 (0%) | NR | NR | NR | NR | NR | NONE |
|  |  |  | Thromboembolic event |  | At followup | Suboptimal response |  | 0 (0%) | NR | NR | NR | NR | NR | NONE |
|  |  |  |  |  |  | Optimal response |  | 0 (0%) | NR | NR | NR | NR | NR | NONE |
|  |  |  | Good function score on modified Ranking Scale | score </=2 | At discharge | Suboptimal response | Yes good function | 16/19 | OR for poor function among suboptimals vs. optimals, 1.55 | 0.54-4.44 | 0.41  Ordinal repeated measures model (GEEs) | YES age, sex, DM status, smoking, PPI) | NR | Table 2 has raw data |
|  |  |  |  |  |  | Optimal response |  | 32/33 (97%) | NR | NR | NR | NR | NR | Table 2 has raw data |
|  |  |  |  |  | At followup | Suboptimal response |  | 16/19 (84%) | NR | NR | NR | NR | NR | Table 2 has raw data |
|  |  |  |  |  |  | Optimal response |  | 31/33 (94%) | NR | NR | NR | NR | NR | Table 2 has raw data |
|  |  |  | Good function Glasgow Outcome Score | Score >/=4 | At discharge | Suboptimal response |  | 17/19 (89%) | OR for poor function among suboptimals vs. optimals, 1.19 | 0.25-5.67 | 0.83  Ordinal repeated measures model (GEEs) | YES age, sex, DM status, smoking, PPI) |  | Table 2 has raw data |
|  |  |  |  |  |  | Optimal response |  | 33/33 (100%) | NR | NR | NR | NR | NR | Table 2 has raw data |
|  |  |  |  |  | At followup | Suboptimal response |  | 17/19 (89%) | NR | NR | NR | NR | NR | Table 2 has raw data |
|  |  |  |  |  |  | Optimal response |  | 31/33 (94%) | NR | NR | NR | NR | NR | Table 2 has raw data |
| Kang, 2010{Kang, 2010 1 /id}  20223886 South Korea NR | Clopidogrel 300 mg LD | VerifyNow P2Y12 assay | procedure-related thromboembolism | Thrombus formation and/or a distal embolism observed during procedure or clinically recognized ischemic deficits that occurred within 60 days of the procedure | 60 days | PRU>295 | Thromboembolic event | NR | Sensitivity: 75%  Specificity: 57%  AUC: 0.675 | 0.526-0.825 | P=0.043 | NO | NR |  |
|  | Clopidogrel 300 mg LD | VerifyNow P2Y12 assay | procedure-related thromboembolism | Thrombus formation and/or a distal embolism observed during procedure or clinically recognized ischemic deficits that occurred within 60 days of the procedure | 60 days | 1st quartile | Thromboembolic event | 2 | NR | NR | 0.013  (between quartiles, Chi-square for trends) | NO | Tukey-Kramer multiple comparison test |  |
|  |  |  |  |  |  | 2nd quartile |  | 1 |  |  |  |  |  |  |
|  |  |  |  |  |  | 3rd quartile |  | 3 |  |  |  |  |  |  |
|  |  |  |  |  |  | 4th quartile |  | 8 |  |  |  |  |  |  |
|  | Clopidogrel 300 mg LD | VerifyNow P2Y12 assay | procedure-related aneurysm perforation | Perforation (“leak” [demonstration of extra-aneurysmal contrast material] and “nonleak” [device extrusion from an aneurysm without contrast leakage]) | 60 days | 1st quartile | Perforation | 1 | NR | NR | 0.605  (between quartiles, Chi-square for trends) | NO | Tukey-Kramer multiple comparison test |  |
|  |  |  |  |  |  | 2nd quartile |  | 0 |  |  |  |  |  |  |
|  |  |  |  |  |  | 3rd quartile |  | 0 |  |  |  |  |  |  |
|  |  |  |  |  |  | 4th quartile |  | 2 |  |  |  |  |  |  |
|  | Clopidogrel 300 mg LD | VerifyNow P2Y12 assay | All procedure related adverse events | Combination of thromboembolic and perforation events | 60 days | 1st quartile | thromboembolic and perforation events | 3 | NR | NR | 0.605  (between quartiles, Chi-square for trends) | NO | Tukey-Kramer multiple comparison test |  |
|  |  |  |  |  |  | 2nd quartile |  | 1 |  |  |  |  |  |  |
|  |  |  |  |  |  | 3rd quartile |  | 3 |  |  |  |  |  |  |
|  |  |  |  |  |  | 4th quartile |  | 10 |  |  |  |  |  |  |
| Ryu, 2010{Ryu, 2010 229 /id}  21113358 South Korea NR | Clopidogrel+aspirin | VerifyNow | thromboembolic compli-cations | Emboloic or thrombotic | 6 mo after stenting/clinical intervention | Resistance | YES event | 5 | NR | NR | NR | NR | NR | NONE |
|  |  |  |  |  |  | Nonresistance |  | 0 |  |  |  |  |  |  |
| Jin, 2012 {Jin, 2012 18230 /id} Korea  NR | 600mg clopidogrel and 300 mg aspirin LD, 75 mg clopidogrel and 100 mg aspirin as MD | VerifyNow P2Y12 | target revascularization | target revascularization | 12 months | no HPR | target revascularization | 5/127=3.9% | HR=1.95 | 0.5-7.57 | 0.333 comparing with HPR  cox-model | **yes** | **No** |  |
|  |  |  |  |  |  | HPR | target revascularization | 4/54=7.4% |  |  |  |  |  |  |