**Appendix Table E113. Results from studies assessing the ability of miscellaneous platelet function tests to predict major adverse cardiovascular events in patients with ischemic heart 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)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Smit,201020889993NetherlandsON-TIME-2 | Clopidogrel 300 mg LD + 75 mg MD | FIPA | MACE | mortality, urgent target vessel revascularisation or recurrent myocardial infarction | 30 days | Quartile 1 | MACE | NR | NR | NR | 0.281; between all quartiles[Chi-square] | NO | NR | Data in figures only shows percentages; needs to be digitized to obtain accurate values |
|  |  |  |  |  |  | Quartile 2  |  | NR |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 3 |  | NR |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 4 |  | NR |  |  |  |  |  |  |
|  | Clopidogrel 300 mg LD + 75 mg MD | Plateletworks | MACE | mortality, urgent target vessel revascularisation or recurrent myocardial infarction | 30 days | Quartile 1 | MACE | NR | NR | NR | 0.358; between all quartiles[Chi-square] | NO | NR | Data in figures only shows percentages; needs to be digitized to obtain accurate values |
|  |  |  |  |  |  | Quartile 2  |  | NR |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 3 |  | NR |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 4 |  | NR |  |  |  |  |  |  |
| Breet,201020179285NetherlandsPOPULAR | maintaining Clopidogrel 75 mg daily +aspirin 80-100mg daily | IMPACT-R ADP  | Death combined  | All-cause death, nonfatal MI, stent thrombosis and stroke | 1-year  | High OTPR | Death combined  | 32/296(10.8) | OR=1.6 | 0.99-2.58 | 0.05high OTPR vs normal | No  | NR |  |
|  |  |  |  |  |  | Normal OTPR |  | 43/609(7.1) |  |  |  |  |  |  |
|  |  | IMPACT-R ADP  | Death combined  | All-cause death, nonfatal MI, stent thrombosis and stroke | 1 year | High OTPR≥93% surface coverage | Death combined  | 33/262 (12.6) | AUC: 0.53Sens: 0.44Spec: 0.669 | 0.47-0.590.333-0.5530.636-0.7 |  | No  | NR |  |
|  |  | Plateletworks ADP  | Death combined  | All-cause death, nonfatal MI, stent thrombosis and stroke | 1-year  | High OTPR≥80.5% | Death combined  | 33/262 (12.6) | AUC: 0.61Sens: 0.63Spec: 0.585 | 0.53-0.690.496-0.7460.544-0.626 | 0.001regression model  | No  | NR |  |
|  |  | Plateletworks ADP  | Death combined  | All-cause death, nonfatal MI, stent thrombosis and stroke | 1-year  | High OTPR | Death combined  | 33/262 (12.6) | OR=2.22 | 1.25-3.93 | 0.005high OTPR vs normallogistic regression analysis | No  | NR |  |
|  |  |  |  |  |  | Normal OTPR |  | 21/344(6.1) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kim, 201020449634KoreaNR | 300-600mg LD and 75 mg maintain dose clopidogrel | 5umol ADP-induced PRmax≥50% | ischemic events  | ischemic events | 6 months | 5umol ADP-induced PRmax≥50% | PRmax≥50% | 2.2% | OR=1.33 | 0.16-11.33 | 0.299PR≥50 vs <50%  | NR | NR | NR |
|  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 |  |  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 | PRmax<50% and PRmax<240 | 1.6% |  |  |  |  |  |  |
|  | 300-600mg LD and 75 mg maintain dose clopidogrel | 5umol ADP-induced PRmax≥50% | ischemic events  | ischemic events | 6 months | 5umol ADP-induced PRmax≥50% | PRmax≥50% | 2.2% | OR=1.33 | 0.16-11.33 | 0.299HPPR vs no-HPPR | NR | NR | NR |
|  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 |  |  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 | no-HPPR(PRmax<50% and PRU<240) | 1.6% |  |  |  |  |  |  |
|  | 300-600mg LD and 75 mg maintain dose clopidogrel | 5umol ADP-induced LTA and VerifyNowP2Y12 | ischemic events  | ischemic events | 6 months | 5umol ADP-induced PRmax≥50% and PRU≥240  | 5umol ADP-induced PRmax≥50% and PRU≥240 | 6.0% | OR=3.86 | 1.55-9.63 | 0.002HPPR vs no-HPPR | NR | NR | NR |
|  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 |  |  |  | 5umol ADP-induced LTA and VerifyNowP2Y12 | no-HPPR(PRmax<50% and PRU<240) | 1.6% |  |  |  |  |  |  |
| Mobley, 200414969622USANONE | 300mg LD Clopidogrel and 75mg MD | Combination of LTA, TEG & Ichor PlateletWorks | Major adverse coronary events | death due to cardiovascular or unknown causes, rehospitalization for angina pectoris, rehospitalization for myocardial infarction, or need for target vessel revascularization  | 1 month | Nonresponder | Yes | 0/15 | OR=0.74(calculated) | NR | p=0.85nonresponder vs. responder Fisher’s exact test | NR | NR |  |
|  |  |  |  |  |  | Responder | Yes | 1/35 |  |  |  |  |  |  |
|  |  |  | Major adverse coronary events | death due to cardiovascular or unknown causes, rehospitalization for angina pectoris, rehospitalization for myocardial infarction, or need for target vessel revascularization  | 6 months | Nonresponder | Yes | 1/15 | OR=0.76 (calculate)  | NR | p=0.82 nonresponder vs. responder Fisher’s exact test | NR | NR |  |
|  |  |  |  |  |  | Responder | Yes | 3/35 |  |  |  |  |  |  |
| Saad, 201222146578EgyptNR | clopidogrel LD: 600 mg; MD: 75 mg/d; aspirin 162 mg/d | P-selectin by flow cytometry | MACE | CV death, recurrent acute coronary syndrome (ACS), and acute,subacute, and late stent thromboses | 6 months | ≥18.5%N=NR | MACE | NR | AUC=0.831 | 0.736-0.926 | P<0.001 | No | NR |  |
|  |  |  |  |  |  | <18.5%N=NR |  | NR |  |  |  |  |  |  |
| Lakkis, 200111458412USANR | clopidogrel 300 mg and aspirin 325 mg and tirofiban  | ICHOR platelet works | MACE | death, Q-wave myocardialinfarction, or rehospitalization for ischemia | 30 days | High reactivity <80% IPAN=1 | MACE | 0 | NR | NR | NR | NR | NR |  |
|  |  |  |  |  |  | Normal reactivity <80% IPAN=19 |  | 0 |  |  |  |  |  |  |
|  | clopidogrel 300 mg and aspirin 325 mg and Abciximab | ICHOR platelet works | MACE | death, Q-wave myocardialinfarction, or rehospitalization for ischemia | 30 days | High reactivity <80% IPAN=2 | MACE | 0 | NR | NR | NR | NR | NR |  |
|  |  |  |  |  |  | Normal reactivity <80% IPAN=8 |  | 0 |  |  |  |  |  |  |