mortality rates, all-cause mortality is lowest for those on NOACs. Patients not prescribed recommended treatment, may benefit from expert review to reduce AEs. Risk aversion of bleeding may be why these patients have no OAC or antiplatelet treatment, which may be a disadvantage. Prospective registry studies of AF patients may be beneficial.

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Comparison of long DAPT versus short DAPT in Japanese PCI patients based on healthcare information database

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Background: The optimal duration of dual antiplatelet therapy (DAPT) for Japanese patients treated with percutaneous coronary intervention (PCI) remains uncertain.
Purpose: We compared clinical outcomes between long DAPT versus short DAPT in Japanese PCI patients using healthcare database.
Method: This study investigated patients with coronary artery disease who had undergone PCI and prescribed both aspirin and ADP-receptor antagonist. Healthcare information from April 1st, 2012 to June 30, 2017 was available. Maximum follow up period was 36-month. We investigated the duration of DAPT of each patient. Then we compared composite endpoint (death, myocardial infarction, and stroke) between DAPT ≥6-month group and DAPT <6-month group, and between DAPT ≥12-month group and DAPT <12-month group, respectively, by landmark analysis. We also compared each incidence of intracranial bleeding and gastrointestinal bleeding, respectively.
Results: 7,473 patients were eligible for analysis. The proportion of patients who continued DAPT was 63.4% at 6-month and 41.9% at 12-month, respectively. Patients with a background of bleeding risk tended to have a higher rate of short DAPT compared to patients without bleeding risk. Regarding the composite endpoint (death, myocardial infarction, and stroke), the incidence was significantly lower in DAPT ≥6-month group compared to DAPT <6-month group (8.1% vs 15.3% at 36-months after PCI, Log-rank test P=0.002). In the multivariate analysis, DAPT ≥6-months significantly associated for reducing composite endpoint. The incidence of the composite endpoint was not significantly different between DAPT ≥12-month group and DAPT <12-month group (5.9% vs 8.1% at 36-months, P=0.242). Regarding bleeding events, no significant differences were found between DAPT ≥6-month group and DAPT <6-month group (intracranial bleeding: 1.0% vs 0.7% at 36-months, P=0.443, gastrointestinal bleeding: 4.5% vs 2.8% at 36-months, P=0.267), and DAPT ≥12-month group and DAPT <12-month group (intracranial bleeding: 0.6% vs 0.4% at 36-months, P=0.736, gastrointestinal bleeding: 2.3% vs 2.8% at 36-months, P=0.461).
Conclusion: Based on healthcare information database analysis, DAPT ≥6-month seems to reduce ischemic events without increasing bleeding events in Japanese PCI patients.

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Assessment of cardiovascular disease risk using different thresholds to define high risk on the pooled cohort equations

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Background: Guidelines recommend different cardiovascular disease (CVD) risk thresholds on the Pooled Cohort risk equations (PCRE) for the initiation of statin and antihypertensive therapy, and there is no consensus on which is the better threshold.
Purpose: We determined the sensitivity, specificity, positive and negative predictive values (PPV and NPV), and reclassification indices for incident CVD events using the PCRE at thresholds of 7.5%, 10%, 15% and 20%.
Methods: We included 18,061 adults in the REGARDS study without a history of heart disease or stroke. Participants were enrolled from 2003–2007. The primary outcome, assessed over a median of 8.5 years, was incident CVD, defined as adjudicated coronary heart disease and stroke events (n=1,417).
Results: There was a strong, graded association between higher categories of 10-year predicted CVD risk on the PCRE and a higher incidence of CVD events. The incidence rates (95% CI) per 1,000 person-years for CVD were 3.9 (3.4, 4.5), 7.2 (6.0, 8.6), 11.3 (10.1, 12.7), 14.1 (12.4, 16.0) and 21.2 (19.4, 23.2) for participants with a 10-year predicted CVD risk of <7.5%, 7.5 to <10%, 10 to <15%, 15 to <20% and ≥20%, respectively. At a PCRE threshold of 7.5%, the sensitivity and specificity were 0.86 and 0.38, respectively, and PPV and NPV were 0.11 and 0.97, respectively (Table). Sensitivity and NPV decreased, while specificity and PPV increased, when defining high risk using higher PCRE thresholds. The highest Youden's index was at a 10-year predicted CVD risk of 10% to 12%. The largest improvement in reclassification compared to the PCRE at the 7.5% threshold was for a threshold of 10%. The net reclassification index (NRI) for the PCRE at a 10% threshold was 0.035 (95% CI: 0.019, 0.053) when compared to the 7.5% threshold. Compared to 15% and 20% thresholds, the NRI for a threshold of 10% was 0.029 (95% CI: 0.005, 0.055) and 0.083 (95% CI: 0.051, 0.118), respectively.

Test characteristics of the PCRE at different risk thresholds

PCRE threshold	Sensitivity	Specificity	PPV	NPV
Overall				
≥7.5%	0.86	0.38	0.11	0.97
≥10%	0.76	0.51	0.12	0.96
≥15%	0.54	0.71	0.13	0.95
≥20%	0.36	0.83	0.15	0.94

Conclusion: The current findings suggest that a threshold of 10% to define high risk on the PCRE may provide the optimal balance of sensitivity and specificity for identifying risk for future CVD events.

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P291
Predicting recurrent CVD events among adults with stable CVD: a new risk model based on pooled NIH cohorts

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Background: Estimating downstream risk for cardiovascular disease (CVD) events among those with known CVD is important as it can influence estimated treatment benefit, cost effectiveness, and treatment selection.
Purpose: To develop a prediction model to estimate the risk of recurrent CVD events among adults with established atherosclerotic CVD.
Methods: Pooled data from the Atherosclerotic Risk in Communities (ARIC) study, Cardiovascular Health Study (CHS), and Framingham Original and Offspring Studies were used to identify adults with known CVD (prior myocardial infarction [MI], angina, coronary revascularization, stroke, transient ischemic attack, or peripheral arterial disease). Multivariable Cox regression was used to develop a model for hard CVD events (MI, stroke, or CV death) at 5-years.
Results: Overall, 1,835 adults with known CVD were included in the analysis. Over 5 years, the CVD event rate was 4.1 per 100 person years. The final model included age, race, sex, diastolic blood pressure, non-HDL-C, creatinine clearance, statin use, blood pressure medication use, peripheral arterial disease, heart failure, diabetes (on insulin, on orals, no diabetes), and history of stroke or MI in the past 5 years. Model risk estimates varied widely among patient risk deciles (from under 10% to >50%) and were calibrated with observed risk (Figure). After bootstrap correction, model discrimination (c-index) was 0.70 (95% CI: 0.67–0.73).

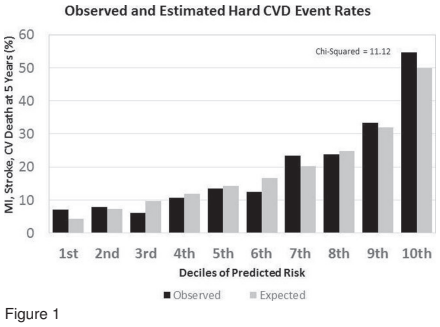

Figure 1

Conclusion: Using readily available demographic and clinical characteristics, the risk for recurrent CVD events can be accurately estimated among those known CVD. Validation work is underway in an electronic health record-based sample. Targeting those at highest risk may help improve the selection and cost effectiveness of CVD therapies.

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VENTRICULAR ARRHYTHMIAS AND SUDDEN CARDIAC DEATH – TREATMENT

P292
Outcomes of adults with tetralogy of fallot undergoing catheter ablation for atrial and ventricular arrhythmias

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Introduction: Surgical repair of tetralogy of Fallot (TOF) has dramatically improved survival. However, with this comes increased long-term complications, including arrhythmias. It has been estimated that the burden of arrhythmias in this