all patients were obtained; adverse events were externally adjudicated by an independent committee. The primary endpoint was target vessel failure (TVF) at 1-year, a composite of cardiac death, target vessel related MI, and clinically indicated target vessel revascularization. Secondary endpoints included all the individual components of the primary endpoint, the incidence of stent thrombosis (ST), and the patient-oriented clinical endpoint (POCE).
Results: Patient and lesion characteristics did not differ between groups with the only exception being higher proportions of severely calcified lesions (87/548(16%) vs. 108/500(22%), p=0.02) and stent postdilatation in EES (402/548 (73%) vs. 400/500 (80%), p=0.01). At one year, TVF did not differ significantly between the two stent arms (20/421(5%) vs. 15/396 (4%, p=0.50). In addition, POCE was 8% (32/421) for ZES and 6% (23/396) for EES (p=0.31). Definite-or-probable ST rates were very low and similar in both groups (2/421 (0.5%) vs. 1/396 (0.3%), p=1.00).
Conclusions: One-year follow-up of DUTCH PEERS patients, who were treated for acute MI, demonstrated excellent clinical results with a similar and sustained safety and efficacy of the Resolute Integrity ZES and the Promus Element EES.

TCT-28

Comparison Of Outcomes For Primary Percutaneous Coronary Intervention During Out Of Working Hours Versus In Working Hours: An Observational Cohort Study Of 11,461 Patients

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Background: Primary percutaneous coronary intervention (PPCI) is the treatment of choice for ST-elevation myocardial infarction (STEMI). The optimum delivery of this service requires an integrated, multi-disciplinary, consultant-led, protocol-driven approach. It is widely recognised that resources including availability of medical personnel are limited during out of working hours, particularly at night. Currently, it is unclear whether PPCI during working hours is associated with improved outcomes.
Methods: We conducted an observational analysis for 11,461 patients with STEMI who underwent PPCI between 2004-2011 at all 8 tertiary cardiac centres in London, UK. The primary outcome was all-cause mortality at 1 year. We defined working hours as 9am-5pm (Mon-Fri). We compared outcomes in patients treated out of working hours (OWH) versus in working hours (IWH). Cox-proportional hazard models built using a stepwise variable selection process were used to determine independent predictors for mortality. We used propensity-based matching methods to adjust for measured confounders; and instrumental variable analyses to adjust for non-measured confounders.
Results: Of the 11,461 patients in the analysis, 7494 patients (65.3%) were treated with PPCI during OWH. There was no difference in 1-year mortality rates when comparing OWH vs. IWH (8.6% vs. 7.8%, p=0.151). Multivariate analysis demonstrated that PPCI during OWH was not a predictor for 1-year mortality (HR=1.11, 95%CI: 0.94-1.32, p=0.201). When stratifying OWH into 2-hourly intervals, multivariate analyses demonstrated that there was no particular time interval that was associated with increased mortality. When analysing 5228 patients in propensity-matched cohorts, again, PPCI during OWH was not a predictor for 1-year mortality (HR=1.10, 95%CI: 0.90-1.34, p=0.356). Using enrollment year as an instrumental variable, PPCI during OWH did not affect mortality (absolute difference=2.1%, 95% CI:-12.6%,16.8%, p=0.888).
Conclusions: In this observational analysis of unselected STEMI patients, PPCI outside routine working hours compared to within routine working hours is safe with no difference in 1-year mortality.

TCT-29

CLINICAL AND ANGIOGRAPHIC PROFILE OF PATIENTS UNDERGOING PRIMARY: DATA FROM FIRST NATIONWIDE REGISTRY

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Background: This briefly describes the set up and the preliminary results of the "first Nationwide" 24/7 Primary PCI for ST-Elevation Myocardial Infarction Program in the gulf region.
Methods: In our center over 3500 diagnostic and 1500 Interventional PCI, including Primary PCI procedures were performed in 2013. With this experience, we proceeded to setup a nationwide Primary PCI program such that all patients with St-Elevation Myocardial Infarction (STEMI) were referred seamlessly for immediate Primary PCI through coordination of all Cardiology, Emergency and Ambulance services in the whole country, and under one control and command center. Since its establishment, we hereby report 422 patients underwent Primary PCI in 6 months. The clinical and angiographic data were collected and analyzed.
Results: Primary PCI was performed in 422 patients with STEMI (10 months data will be presented at the conference). The mean age was 50+/-9.5 years. The program allowed faster and direct transfer of patients to the Primary PCI facility leading very short Door-to-Balloon Time (DBT) of 52.8±25 min (>94% of patients were < 90 min). For those referred from non-Primary PCI facility, 77% had DBT of < 120 min (as stated in the guidelines)(mean of 80±20.7 min). The overall in-hospital mortality for Primary PCI patients was 2.8%. Radial approach was used in nearly half the patients (43.5%) and femoral in the other 56.5% with similar DBT for both. More precisely, the time from arrival to Cath lab to Balloon Dilatation (procedure time) was similar for both approaches 18.6±8.3 min for femoral) and (17±7.2 min for Radial). Overall, less than TIMI III flow (i.e. TIMI 0, I or II) was found in 85% of patients before Primary PCI, of these, full TIMI III flow was achieved in 93% of those cases. Achievement of this TIMI III flow was also similar between Femoral and Radial approaches.
Conclusions: This is the first coordinated "Nationwide" Primary PCI program in the gulf region. The data emphasize how good communication allows Primary PCI for all STEMI patients, at a very short DBT and with low in-hospital mortality. Radial and Femoral approaches were used almost equally with similar achievement of TIMI III flow and procedure time.

TCT-30

Clinical Predictors and Long-term Impact of Enzymatic Infarct Size After Primary PCI in STEMI: The HORIZONS-AMI Trial

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Background: We sought to elucidate: 1) the predictors of enzymatic infarct size assessed by peak CK-MB in pts with ST-segment elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PCI); and 2) the impact of peak CK-MB on cardiac mortality at 3 years.
Methods: HORIZONS-AMI was a prospective, open-label, multicenter, dual-arm, 2×2 factorial randomized trial in pts with STEMI presenting < 12 hours after symptom onset. The 2 randomization arms consisted of 1) bivalirudin alone vs heparin plus a glycoprotein IIb/IIIa inhibitor; and 2) TAXUS paclitaxel-eluting stents (PES) vs bare metal stents (BMS). We evaluated infarct size according to peak CK-MB ratio (peak-CK-MB/upper limit of normal [ULN]).
Results: Peak CK-MB ratio was available in 3068 of 3345 patients (91.7%). Median peak CK-MB ratio was 13.9 (IQR 5.8 to 32.4). By linear regression, the independent predictors of peak CK-MB ratio were US location (p< 0.0001), LAD culprit location (p< 0.0001), baseline TIMI grade 0/1 flow (p< 0.0001), and post-stent balloon dilatation (p=0.04). Beta-blocker use before PCI predicted lower peak CK-MB (p=0.03). In a covariate-adjusted Cox regression model, peak CK-MB ratio was an independent predictor of 3-year cardiac mortality (Table).

Table. Independent Predictors of 3-year Cardiac Mortality

	Hazard ratio	95% Confidence Interval	P Value
Peak CK-MB ratio (per 100 ULN)	1.13	1.04 to 1.22	0.002
Age (per 5 years)	1.20	1.09 to 1.31	0.0001
Diabetes mellitus	2.18	1.42 to 3.33	<0.001
Culprit lesion of proximal LAD	1.62	0.95 to 2.76	0.08
PCI of left main artery	4.19	1.67 to 10.53	0.002
Killip class 2-4	2.45	1.51 to 3.97	<0.001
Baseline creatinine (per 0.1 mg/dL)	1.05	1.03 to 1.07	<0.001
Bivalirudin use (vs. UFH+GPI)	0.47	0.31 to 0.72	<0.001
Acquired thrombocytopenia	1.84	1.19 to 2.87	0.007
Major bleeding	2.53	1.56 to 4.11	<0.001

PCI=percutaneous coronary intervention; UFH=unfractionated heparin; GPI=glycoprotein IIb/IIIa inhibitor.

Conclusions: In this large-scale prospective trial of patients with STEMI undergoing primary PCI, enzymatic infarct size estimated by peak CK-MB ratio was an independent predictor of 3-year cardiac mortality. Further studies are warranted to identify interventions to reduce infarct size after primary PCI.