

major bleeding and eptifibatid was modeled into the National Cardiovascular Database Registry (NCDR) bleeding risk score to evaluate independent risk.

**Results:** Significant procedure related differences exist between groups (Table 1), while in hospital adverse events were similar (OR: 0.12; 95% CI, 0.90 - 2.96). No difference in TIMI major bleeding was seen (3.9% vs. 6%;  $p = 0.20$ ). Eptifibatid modestly increased the bleeding risk (OR: 1.64; 95% CI, 1.01 - 2.67,  $p = 0.045$ ), however, it did not improve the NCDR bleeding risk models' ability to predict events.

**Conclusion:** Use of combination therapy reflects a high risk STEMI population. Despite this, the risk of in-hospital adverse events was not different between patients receiving bivalirudin plus eptifibatid vs. bivalirudin monotherapy. Likewise, combination therapy did not increase rates of major bleeding. Therefore, the use of eptifibatid should be considered in the higher risk STEMI population.

Characteristic	Bivalirudin + Eptifibatid (n=210)	Bivalirudin alone (n=1639)	p value
Cardiogenic shock	15.7%	9.4%	<0.01
Aspiration thrombectomy	48.5%	23.7%	<0.001
Pre-TIMI flow $\leq 1$	63.5%	40%	<0.001
Peak troponin I	93.65 $\pm$ 92.7	49.16 $\pm$ 81.59	<0.001
Type C lesion	50.5%	42.4%	<0.01

## CRT-115

### In the Current Era of ST Elevation Myocardial Infarction Treatment, What Patients Are Not Reperused? - An Observational Analysis

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**Background:** The current treatment of ST segment elevation myocardial infarction (STEMI) is mechanical reperfusion by Primary Percutaneous Coronary Intervention (PPCI) or systemic thrombolysis. Several factors are related to non-reperfusion, with advanced age being particularly significant. At present, no study has examined the presentation and characteristics of the non-reperused patient in Ireland. Further study is clearly needed in this area, especially as the older demographic of the population increases.

**Objective:** To define, understand and critically evaluate STEMI patients who do not receive reperfusion therapy.

**Methods:** The Coronary Heart Attack Ireland Register (CHAIR) was used to identify STEMI patients who did not receive reperfusion therapy between January 1st 2007 and December 31st 2011. A retrospective review of patient charts was performed at Cork University Hospital, Mercy University Hospital, South Infirmary Victoria University Hospital and Mallow General Hospital. The contribution of non-reperfusion to patient mortality was also examined in terms of 30-day mortality and 1-year mortality post STEMI.

**Results:** 77 cases were included. Results indicate that most were female (n=47, 61%) with a median age of 80.39 years. 54.5% (n=42) had a past medical history of coronary heart disease with hypertension being the main risk factor (n=43, 55.8%). 49% (n=38) were considered independent in terms of ADLs. Patient mortality at 30 days post STEMI was 55.8%. This increased to 61% at 1 year.

**Conclusion:** As the older demographic in our population increases, this patient cohort will become particularly significant. Mortality among these patients is high yet a significant number were considered independent in terms of ADLs. Prospective evaluation of this patient cohort needs to take place to monitor the effect of the introduction of the PPCI National Strategy in Ireland in 2012. Internationally, larger studies are needed to determine the role of social factors as predictors of non-reperfusion.

## CRT-116

### Predictors of Inappropriate Activation of the Cardiac Catheterization Laboratory for Code STEMI

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**Background:** Patients presenting with ST elevation myocardial infarction (STEMI) benefit from primary percutaneous coronary intervention (PCI) if performed in a timely manner. Inappropriate activation (IA) of the cardiac catheterization laboratory is associated with significant time and financial costs. Patient level predictors of IA have not been well-characterized. The objective of this study was to determine predictors of IA in patients activated for code STEMI.

**Methods:** We retrospectively analyzed a cohort of 396 consecutive patients who were activated for code STEMI from January 2009 through April 2011 at a large, urban teaching hospital. Those who underwent emergent coronary angiography (with or without PCI) were categorized as having appropriate activation (n=228). Patients for whom code STEMI activation was subsequently cancelled and did not undergo emergent coronary angiography were categorized as inappropriate activation (n=168). Both groups were compared and predictors for IA were determined using multivariate logistic regression analysis.

**Results:** IA occurred in 42% of patients activated for code STEMI. Mean age, gender distribution, and history of prior myocardial infarction were similar between the groups. Body mass index < 18.5, use of self-transport to the emergency department, initial complaint, recent cocaine use, history of congestive heart failure, and history of atrial fibrillation were significantly between the two groups. Independent predictors for IA included age  $\leq 35$  years (odds ratio [OR], 4.85; 95% CI, 1.18-19.96;  $p=0.03$ ), body mass index <18.5 (OR, 15.91; 95% CI, 5.38-47.07;  $p<0.0001$ ), absence of both chest pain and shortness of breath at presentation (OR, 3.21; 95% CI, 1.79-5.76;  $p<0.0001$ ), recent cocaine use (OR, 5.01; 95% CI, 1.19-10.12;  $p=0.02$ ), history of congestive heart failure (OR, 3.59; 95% CI, 1.58-8.13;  $p=0.002$ ), and history of atrial fibrillation (OR, 3.47; 95% CI, 1.19-10.12;  $p=0.02$ ).

**Conclusions:** Multiple patient-level characteristics were associated with IA of the cardiac catheterization laboratory. Younger age, absence of both chest pain and shortness of breath, recent cocaine use, and history of heart failure and atrial fibrillation were independent predictors of IA.

## CRT-117

### Hispanic Patients Undergoing Primary PCI within Los Angeles County STEMI Receiving System

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**Background:** Hispanics are one of the largest growing ethnic minorities in the United States but have been under represented in contemporary cardiovascular trials. Information regarding Hispanic patients treated with Primary PCI within a regional STEMI system of care has not been previously reported.

**Methods:** The Los Angeles County Emergency Medical System (EMS) STEMI Receiving Center (SRC) Database was queried from January 2007 to December 2011 to identify all patients with a pre-hospital ECG showing STEMI. Eight thousand, eight hundred and thirty-seven patients were included; 1,737 (19.7%) were Hispanic and 4,637 (52.5%) were non-Hispanic whites. Hispanic and non-Hispanic whites undergoing primary PCI were compared based upon demographics, treatment time intervals and in-hospital clinical outcome.

**Results:** Hispanic patients were younger compared to non-Hispanic whites, 62.8 vs 67.5 years,  $p < 0.0001$ , respectively. Treatment times including medical contact to door time (21  $\pm$  12.9 vs 20.7  $\pm$  12.2 mins,  $p = 0.43$ ) and door to balloon time (63.1  $\pm$  31.7 vs 63.9  $\pm$  33.1 mins,  $p = 0.20$ ) were similar between the Hispanic and non-Hispanic whites, respectively. Hispanic patients achieved a higher rate of TIMI 3 flow in the infarct related artery compared to non-Hispanic whites, 86.7% vs 83.7%,  $p = 0.04$ , respectively. The rate of vascular complications, need for emergent coronary artery bypass surgery, occurrence of stroke, length of hospital stay and in-hospital mortality were similar between the groups (Table).