



 MYOCARDIAL ISCHEMIA AND INFARCTION

BIVALIRUDIN THERAPY IS ASSOCIATED WITH IMPROVED CLINICAL AND ECONOMIC OUTCOMES IN STEMI PATIENTS UNDERGOING PCI: RESULTS FROM AN OBSERVATIONAL DATABASE

ACC Poster Contributions
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Background: Randomized trials show better outcomes among ACS patients (pts) treated with bivalirudin (Biv). We compare clinical and economic outcomes of STEMI pts undergoing PCI treated with Biv or heparin + GP IIb/IIIa inhibitor (Hep+GPI) in an unselected population.

Methods: STEMI discharges from 2004-2008 in patient ≥ 18 years undergoing a PCI with Biv or Hep+GPI were identified in the Premier Perspective Database. The impact of Biv vs Hep+GPI on severe bleeding, all-cause inpatient death, length of stay (LOS), and cost was evaluated using propensity score matching. Logistic regression was used to estimate the probability of receiving Biv for each discharge adjusting for individual and hospital characteristics. The Greedy matching algorithm without replacement was used to match each Biv discharge to 3 Hep+GPI discharges. Conditional logistic regression was used to test for treatment effects on death and bleeding; stratified sign rank statistics tested for effects on LOS and cost.

Results: We identified 62,025 STEMI discharges with PCI receiving Biv (6,946) or Hep+GPI (55,079). We matched 79% of Biv discharges resulting in 22,076 total discharges. Pts treated with Biv vs Hep+GPI had a significantly lower risk of severe bleeding and inpatient death, shorter LOS, and lower cost (Table).

Conclusions: This large "real-world" analysis demonstrates bivalirudin therapy compared to Hep+GPI is associated with reduced severe bleeding, inpatient mortality, shorter LOS and cost in STEMI pts undergoing PCI.

Outcomes	Bivalirudin Treatment Group N=5,519	Heparin + GPI Treatment Group N=16,557	P-value (adjusted for matching)
Inpatient death, N (%)	217 (3.9%)	764 (4.6%)	0.0334
Severe bleed, N (%)	222 (4.0%)	920 (5.6%)	<0.0001
Length of stay, mean (SD), days	4.3 (4.6)	4.6 (4.9)	<0.0001
Cost, mean (SD), \$	\$18,799 (\$15,632)	\$20,511 (\$18,011)	<0.0001