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## Acute Coronary Syndromes

### PROVIDER VARIABILITY AND CHARACTERISTICS ASSOCIATED WITH BIVALIRUDIN USE FOR BLEEDING AVOIDANCE IN PERCUTANEOUS CORONARY INTERVENTION AFTER IMPLEMENTATION OF A DECISION SUPPORT TOOL

Poster Contributions

Hall C

Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Acute Coronary Syndromes: Treatment Considerations

Abstract Category: 1. Acute Coronary Syndromes: Clinical

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**Background:** A decision support tool (DST) should theoretically help physicians deliver evidence-based, patient-centered care. We examined physicians' changes in bivalirudin use after provision of patient-specific bleeding risk estimates at time of PCI.

**Methods:** In a 9-center study of 9,383 propensity-matched patients treated by 145 physicians, we used hierarchical models to estimate physicians' changes in bivalirudin use, both overall and as a function of bleeding risk, adjusting for center and pre-DST bivalirudin use. We then examined physician characteristics (age, sex, country of schooling, interventional cardiology (IC) certification and number of publications) associated with change in bivalirudin use.

**Results:** After DST provision, physicians varied significantly on overall bivalirudin use (OR range 0.21-9.34;  $p$  0.006) and use per 1% higher bleeding risk (OR range 0.34-1.78;  $p$  0.02) (figure). In adjusted analyses, older age (OR 1.46; CI 1.1-1.95) and IC certification (OR 3.23; CI 1.41-7.37) were associated with increased overall bivalirudin use, while IC certification was paradoxically associated with decreased bivalirudin use in patients at higher bleeding risk (OR 0.58; CI 0.35-0.95).

**Conclusion:** We observed marked variability in how physicians used bivalirudin in response to a DST. This highlights an opportunity to improve rational bivalirudin use by further exploring physician barriers to DSTs as a means of supporting safer, more effective care.

