ACC.11
60th Annual Scientific Session & Expo

E1101
JACC April 5, 2011
Volume 57, Issue 14

MYOCARDIAL ISCHEMIA AND INFARCTION

ASSOCIATION OF HUB AND SPOKE PRACTICE PATTERNS WITH CORONARY INTERVENTION AND OUTCOMES IN NON ST ELEVATION ACUTE CORONARY SYNDROMES (NSTE ACS): INSIGHTS FROM THE EARLY GLYCOPROTEIN IIB/IIIA INHIBITION IN NSTE ACS (EARLY-ACS) TRIAL

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Tuesday, April 05, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Unstable Ischemic Syndrome -- Clinical: Randomized Trials and Registries
Abstract Category: 2. Unstable Ischemic Syndrome–Clinical
Session-Poster Board Number: 1139-311

Authors: *Olga Toleva, Cynthia M. Westerhout, Manohara Senaratne, Christoph Bode, Magnus Lindroos, Diego Ardissino, Vitaly A. Sulimov, Gilles Montalescot, L Kristin Newby, Robert P. Giugliano, Frans Van de Werf, Paul W. Armstrong, University of Alberta, Edmonton, Canada*

Background: An early invasive strategy (i.e. <48 h) is recommended in high-risk NSTE ACS patients (pts), but the optimal timing is controversial. Because admissions to non-PCI (percutaneous coronary intervention) hospitals (spokes) may cause delay, we evaluated PCI facility (hub) vs. spoke practice patterns and their association with outcomes in a large NSTE ACS trial in which pts were expected to undergo an invasive strategy.

Methods: We compared hub and spoke differences in 9225 pts who had an early invasive strategy in EARLY ACS.

Results: Hub pts more often had prior myocardial infarction (MI), PCI, or coronary artery bypass grafting (CABG), and higher TIMI risk scores (Table). Although spoke pts presented sooner, they had longer time to angiography: 37.8% >48h vs. 32.9% >48h at hubs (p<0.001). High risk pts, especially at hubs, had even greater delay to angiography. Time from symptom onset to CABG was 61.8h longer for spoke pts; hospital stay was 1d longer. Ischemic outcomes were similar, but hub pts had more bleeding and transfusions.

Conclusions: Timely angiography and revascularization was often not achieved especially in spoke sites. Better alignment between risk and use of early intervention is warranted. The basis for higher adjusted bleeding and transfusion rates in hub pts deserves further investigation.

	Hub	Spoke	Propensity-adjusted OR(95% CI) for Hub vs Spoke
n	7455	1770	
Age (y)	67.2 (61.4-75.1)	68.6 (59.8-75.0)*	
Previous MI / PCI / CABG rates, %	28.6/25.9/14.7	23.6*/19.8*/ 9.1*	
Medical management / PCI / CABG after angiogram, %	28.9/59.5/12.4	27.4/61.2/12.0	
Time from symptom onset to angiogram (h)	33.0 (26.1-45.9)	37.8 (28.7-57.5)*	
High risk TIMI Score ≥5, %	36.1	32.4**	
High-risk TIMI with angiogram time >48h, %	37.9	29.0*	
High risk TIMI with PCI time >48h, %	38.2	33.8*	
Time symptom onset to CABG (h)	113.7 (70.7, 179.9)	175.4 (95.0, 282.8)*	
Length of stay (d)	4 (3, 7)	5 (4, 9)*	
96-h death / MI / recurrent ischemia / thrombotic bailout, %	9.8	9.3	1.08(0.90-1.29), p=0.415
30-d death / MI, %	11.7	11.5	1.04(0.88-1.23), p=0.631
120-h GUSTO severe / moderate bleeding, %	6.7	4.4*	1.56(1.21-2.01), p<0.001
In non-CABG pts, 120-h GUSTO severe / moderate bleeding, %	4.2	3.1	1.25(0.90-1.73), p=0.183
120-h RBC transfusions, %	8.2	4.9*	1.55(1.21-1.98), p<0.001

y, h & d are medians (IQ range); *, p<=0.001; **, p=0.004