



QUALITY OF CARE AND OUTCOMES ASSESSMENT

**TIME TRENDS IN PCI AND CABG RATES IN ACUTE MYOCARDIAL INFARCTION PATIENTS WITH CARDIOGENIC SHOCK**

ACC Poster Contributions  
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**Background:** With the advent of drug-eluting stents (DES) and public reporting of coronary artery bypass surgery (CABG) outcomes, some evidence suggest that critically ill patients with acute myocardial infarction (AMI) were more likely to undergo percutaneous coronary intervention (PCI) than CABG. This study examined time trends in CABG and PCI rates in these patients over a 12 year period.

**Methods:** Using the California patient discharge data, the rates of CABG and PCI were examined from 1997 to 2008. Public reporting of CABG outcomes was mandated in California from 2003, and DES were approved for sale in USA in 2003. The study population included patients with AMI and cardiogenic shock. The primary outcomes were (1) Same admission CABG or PCI rates; (2) hospital mortality.

**Results:** From 1997 to 2008, 15198 patients presented with AMI and cardiogenic shock. Over the study period, there was no significant decrease in the overall rate of revascularization (PCI or CABG) (average 80.8%). However, PCI rates increased from 52.9% to 63.3%, while CABG rates decreased from 26.2% to 16.2% (Cochran-Armitage Trend Test  $p < 0.0001$  for both) (Table). Mortality rates decreased for both CABG (25.6% to 18.3%,  $p = 0.0004$ ) and PCI (32.1% to 28.5%,  $p = 0.0078$ ).

**Conclusion:** In California, for patients with AMI and cardiogenic shock, CABG rates have decreased and PCI rates increased from 1997 to 2008. This may represent improvements in PCI technology and/or an effect of public reporting of CABG outcomes. Further studies are required.

Year	AMI patients with cardiogenic shock					
	N	% CABG	% PCI	% No Intervention	% Death w/ CABG	% Death w/ PCI
1997	1041	26.2	52.9	20.8	25.6	32.1
1998	1023	25.5	54.8	19.6	20.7	31.6
1999	1107	29.4	52.4	18.2	29.8	32.2
2000	1149	24.5	55.8	19.8	28.1	34.2
2001	1197	24.7	55.1	20.2	29.7	33.2
2002	1276	23.8	57.6	18.6	29.9	33.6
2003	1389	23.0	57.3	19.7	21.6	30.2
2004	1381	21.1	61.0	17.8	23.3	35.0
2005	1341	17.8	63.0	19.2	23.4	32.8
2006	1383	17.6	64.6	17.7	18.9	28.7
2007	1433	16.7	64.8	18.5	19.2	28.7
2008	1478	16.2	63.3	20.4	18.3	28.5
Cochran-Armitage Trend Test:		<.0001	<.0001	0.3749	0.0004	0.0078