

Changes in hospital treatment of octogenarians with acute coronary syndrome: Data of the Berlin Myocardial Infarction Registry (BMIR)

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Background: Over the last ten years treatment for patients with ACS has changed fundamentally. Whether this change is also affecting older ACS patients was our question.

Method: The BMIR collects data on hospital care of ACS patients prospectively since 1999. In our analysis we included data of patients ≥ 80 years and compared treatment and outcome in 1999-2001 (n=650) and in 2009-2011 (n=1241).

Results: Table: ACS patients ≥ 80 years over time

	1999-2001 (n=650)	2009-2011 (n=1241)	p
Women (%)	67.7	53.9	<0.001
Age in yrs. (mean)	85	85	0.510
STEMI (%)	67.4	34.2	<0.001
Physician escorted EMS (%)	46.7	54.9	0.001
Hypercholesterolemia (%)	18.5	43.9	<0.001
Hypertension (%)	72.9	89.7	<0.001
Renal failure (%)	12.4	37.9	<0.001
Diab. mell. (%)	38.4	37.7	0.787
CHF (%)	17.3	26.5	<0.001
former ACS (%)	25.9	27.9	0.364
Cardiogenic shock on admission (%)	6.2	5.4	0.546
No Reperfusion (%)	68.2	39.4	<0.001
Thrombolysis (%)	20.2	0.7	<0.001
PCI <48h (%)	10.9	56.9	<0.001
Emergency ACVB OP (%)	0.6	3.1	0.011
Door-to-balloon time STEMI (Med. in h)	2.63	1.23	<0.001
Hospital mortality (%)	26.7	15.1	<0.001
Length of hospital stay (Median in days)	15	7	<0.001
ASA upon discharge (%)	91.9	96.7	<0.001
Beta-BI. upon discharge (%)	71.2	93.3	<0.001
Statines upon discharge (%)	18.3	81.6	<0.001
ACE/ARB-BI. upon discharge (%)	77.6	89.3	<0.001

Conclusion:

1. Octogenarians receive reperfusion (mostly PCI) significantly more often and those with STEMI also faster than 10 years ago.
2. Concomitant drug therapy upon hospital discharge also improved significantly over time for octogenarians under guideline influence.
3. For octogenarians days of stay in the hospital as well as hospital mortality have significantly decreased over the last 10 years, although baseline characteristics have remained the same (age, diabetes mellitus, former ACS, shock on admission) or show an increase over time (possibly due to a new hospital coding system introduced in 2004), i.e. patients with RF, CHF, hypertension, and hypercholesterolemia.