

## **Lower use of Thrombolysis in Women is not due to Bias in Initial Assessment**

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**Introduction:** The role of patient gender in the diagnosis and management decisions of doctors assessing patients with possible myocardial infarction (MI), was prospectively studied.

**Methods:** 1253 consecutive patients presenting to a UK teaching hospital A&E with non-traumatic chest pain in 1993-94 were studied to determine presenting characteristics, final diagnosis and management. Physicians initially assessing patients were asked for the diagnosis, and if thrombolysis was recommended.

**Results:** 1180 patients had full follow-up, mean age 58.6yr (men 57.5yr, women 60.7yr,  $P < 0.001$ ), 403 women (34.2%). There were 170 MIs (14.4%), 114 (14.7%) men, 56 (13.9%) women. Physicians' initial assessment did not favor treating men. They had sensitivity and specificity for diagnosis of MI of 73.0% and 89.0% in men and 78.6% and 90.8% in women ( $P = NS$ ). They initially recommended that 96 patients should receive thrombolysis, 60 men (7.7%) and 36 women (8.9%), representing 35.1% of MIs in men, 50.0% in women ( $P = NS$ ). Access of men with MI to CCU was similar to women, 68.4% vs. 75.0% ( $P = NS$ ).

Despite this 72/115 (62.6%) men and 32/56 (57.0%) of women with MI actually received thrombolysis ( $P < 0.02$ ). Median age of women vs. men with MI was 73yr vs. 63.5yr ( $P < 0.001$ ).

Predictors for receiving thrombolysis by logistic regression (patients with MI) were: physician diagnosis of MI (odds ratio(OR) 2.82  $P < 0.001$ ), physician recommendation for thrombolysis (OR 5.79  $P < 0.0001$ ), hypoperfusion (OR 2.36  $P < 0.03$ ), age  $> 67$  yrs (OR 0.52,  $P = 0.014$ ) and shock (OR 0.12,  $P = 0.013$ ). Gender was not significant (OR 1.51, 95% CI 0.86 – 2.66,  $P = 0.151$ ). These parameter estimates were similar for all 1180 patients.

**Conclusion:** The lower proportion of women with MI receiving thrombolysis was not due to bias in initial assessment or referral to CCU but was probably the result of clinical features and age.