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IS THERE A NEED FOR SPECIALIST CARDIAC CARE FOR PATIENTS WITH NON-ST ELEVATION MYOCARDIAL INFARCTION? AN ANALYSIS OF 85 780 PATIENT EPISODES FROM THE MINAP DATABASE 2008–2009

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Background A previous analysis of the MINAP database in 2004/2005 indicated that patients admitted to hospital with myocardial infarction in England and Wales experienced better outcomes when cared for by specialist cardiology teams. Since then, routine care of ST-elevation myocardial infarction (STEMI) has been devolved wholly to cardiologists with the advent of primary PCI networks, and dissemination of clear guidance from NICE and the ESC for post-infarct patients that is readily available to all physicians has led to a move to downgrade/decommission coronary care units in some hospitals given a perceived lack of need.

Methods All patients presenting to hospitals in England and Wales 2008–2009 with non-STEMI (nSTEMI) recorded in the MINAP dataset (n=85 780) were included; outcomes analysed included access to specialist acute cardiac care units (ACCU; dedicated coronary care units or cardiology wards) and coronary angiography, provision of secondary preventative medications, length of hospital stay and mortality.

Results 47% of nSTEMI cases (39 674/85 780) were admitted under specialist cardiology care compared with 36% in 2004–2005. When hospitals were divided by proportion of nSTEMI admissions to ACCU, access to coronary angiography was higher and median length of stay lower incrementally by quartile (table). When adjusted for confounding variables (age, sex, relevant comorbidities), relative risk of hospital stay less than overall median compared with Q1 was: Q2 1.21 (95% CI 1.8 to 1.3), Q3 1.32 (95% CI 1.3 to 1.4) and Q4 1.62 (95% CI 1.6 to 1.7; all comparisons p<0.001). Prescription of appropriate secondary preventative medications was better for patients admitted to ACCU (ORs: aspirin 1.56, 95% CI 1.2 to 2.0, p<0.001; β -blocker 1.21, 95% CI 1.1 to 1.4, p<0.005; ACE inhibitor 1.36, 95% CI 1.2 to

Table 1

Quartile	Patients admitted to ACCU (% of nSTEMIs)	Median length of stay (days, IQR)	Access to coronary angiography (%)	Crude 30-day mortality (%)
Q1	≤27%	7.5 (4.9–13.0)	56.2%	7.9%
Q2	28–47%	6.8 (4.6–11.8)	52.1%	7.8%
Q3	48–72%	6.5 (4.3–11.2)	58.6%	7.7%
Q4	>72%	5.6 (3.6–9.6)	66.9%	5.6%

1.5, $p<0.0001$; statin 1.23, 95% CI 1.0 to 1.5, $p<0.05$) with the exception of clopidogrel, which was similar (OR 1.11, 95% CI 0.9 to 1.3, $p=0.1$). Unadjusted crude mortality was lowest for hospitals admitting the highest proportion of patients to ACCU (table). Relative risk of death within 30 days after adjustment for confounding variables for patients admitted with nSTEMI to ACCU compared with general medical facilities was 0.88 (95% CI 0.8 to 0.9; $p<0.001$).

Conclusions Despite improved care for patients with STEMI in England and Wales, the need for specialist cardiac care for patients with nSTEMI is mandated in terms of economy (length of stay), quality of care (medication provision) and clinical governance (mortality). Patients with nSTEMI should therefore universally be admitted under the care of cardiologists, in expanded ACCU facilities.