

The Stroke Thrombolysis Service at a District General Hospital: Effectiveness and potential for further development.

Acute Stroke

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Introduction:

In 2005 0.1% of UK stroke patients were treated with thrombolysis. The 2005 National Sentinel Organisational Audit for Stroke estimates that with widespread availability, 9% may be eligible for treatment. In May 2004 Royal Bournemouth Hospital (RBH) established its pilot service, operating 09:00-17:00 Monday to Friday, with FAST track ambulance protocols starting in November 2004. Dorset Ambulance Service took a unique stance of upgrading all stroke calls to a category A response (<8mins rather than <19mins). This audit aimed to assess the efficiency of the current service.

Methods:

All stroke admissions to RBH were audited prospectively from April 2004 to July 2006. The safety and outcome measures of those patients receiving thrombolysis were compared to the accepted standards for Safe Implementation of Thrombolysis in Stroke (SITS).

Results:

The mean monthly stroke admissions in 2004 were 41.9 patients (95% CI +/- 6.3) and in 2005 were 38.1 patients (95% CI +/- 4.2).

The proportion admitted within 3 hours of onset increased significantly from 21% in 2004 (prior to the Paramedic protocols) to 34% in 2005 (Wilcoxon, p=0.0039).

Although 52% arrived outside of normal working hours, 3% of all stroke admissions received thrombolysis. The safety profiles and outcome measures were comparable with the meta-analysis of the stroke thrombolysis trials:

- 3 month modified Rankin Score <3 = 51%
- 3 month Mortality = 11%
- Symptomatic intracerebral haemorrhage = 5%.

Conclusion:

The pilot thrombolysis service at RBH is safe and effective.

Stroke patients are delivered sooner due to the FAST track ambulance protocol, uniquely upgraded ambulance response times for stroke calls and improved local awareness of the service.

Projections from this audit demonstrate that, with service expansion to cover out-of-hours admissions, the proportion of stroke patients to receive thrombolysis could rise to at least 6.6%.

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