PARAMEDIC ACUTE STROKE TREATMENT ASSESSMENT (PASTA) TRIAL: MAIN RESULTS

Background

- Rapid thrombolysis reduces disability for selected stroke patients but it is challenging to optimise delivery
- We evaluated the clinical and cost effectiveness of a Paramedic Acute Stroke Treatment Assessment (PASTA) aimed to facilitate thrombolysis
- PASTA comprised additional pre-hospital information collection, structured hospital handover, practical assistance post-handover, a pre-departure care checklist and clinician feedback
- The primary outcome was the proportion of all stroke patients receiving thrombolysis
PARAMEDIC ACUTE STROKE TREATMENT ASSESSMENT (PASTA) TRIAL: MAIN RESULTS

Methods

• A pragmatic multicentre cluster randomised controlled trial was hosted by 3 ambulance services and 15 hospitals in the UK (Dec 2015 to Jul 2018)
• Hospitals were already providing thrombolysis with pre-notification for paramedic suspected stroke
• Ambulance stations were randomised to PASTA (intervention) or standard care (control)
• PASTA paramedics each completed 1 hour of intervention training
• Initial paramedic stroke identification was unchanged
• Stroke patients were enrolled if it was confirmed in hospital that they had been seen by a study paramedic within 4 hours of symptoms starting
PARAMEDIC ACUTE STROKE TREATMENT ASSESSMENT (PASTA) TRIAL: MAIN RESULTS

Results

• 1214 patients were enrolled: 500 assessed by 242 PASTA paramedics and 714 assessed by 355 standard care paramedics

• PASTA did not increase the proportion of patients receiving thrombolysis, instead there was a non-significant trend for less thrombolysis amongst the intervention group: 197/500 (39.4%) PASTA and 319/714 (44.7%) standard care patients [adjusted Odds Ratio 0.81 (95% CI 0.61 to 1.08); p=0.15]

• The average time from paramedic assessment to thrombolysis was 8.5 minutes longer for PASTA patients [p=0.01]

• However after 90 days, there was a non-significant trend for fewer PASTA patients to be dead or dependent on others for personal care [adjusted Odds Ratio 0.86 (95% CI 0.60 to 1.2); p=0.39]

• There was a small non-significant gain in Quality Adjusted Life Years for PASTA patients [0.006 (95% CI -0.003 to 0.015)] and costs less than standard health and social care by an average of £1,105 (95%CI -£2256 to -£60)

Conclusion

• The enhanced paramedic assessment did not increase the rate or speed of thrombolysis, but cost-effective outcome changes may represent better informed treatment decisions which subsequently reduce care costs.