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Oral presentation

The Trauma Centre: a specialty hospital, not a hospital of specialties

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Background

Trauma is a leading cause of death and disability in England and Wales, with 16,000 injury deaths per year. High estimates of preventable death rates have renewed the impetus for national regionalisation of major trauma to specialist centres. We hypothesized that the institution of a specialist multidisciplinary trauma service and performance improvement programme had resulted in significant improvements in outcomes in excess of any observed national changes.

Methods

This study was a comparative analysis of data from 2000–2005 for the Royal London Hospital (RLH) trauma registry and the Trauma Audit & Research Network for England and Wales. Reductions in preventable mortality were evaluated through prospective analysis of the RLH performance improvement programme.

Findings

RLH mortality from critical injury was 48% lower in 2005 than 2000 (χ^2, p = 0.001). Overall mortality rates were unchanged for acute hospitals (4.3% vs 4.4%) and other multispecialty hospitals (MSH) (8.7% vs 7.3%). Improvements at RLH outpaced any changes in national outcomes. Secondary transfer mortality in critically injured patients was 53% (p = 0.001) lower in our regional network than the national average. Preventable deaths fell from 9.1% to 1.8% (p = 0.04) and significant gains were made in critical care and ward bed utilization. 2005 benchmarks for time to CT and laparotomy were significantly faster at RLH than other MSH.

Interpretation

Institution of a specialist trauma service and performance improvement programme was associated with significant improvements in injury outcomes that exceeded national variations. A national trauma system requires specialist trauma hospitals, not hospitals with trauma specialties.