The Legacy of NHS London Stroke

Tony Rudd
London Stroke Clinical Director
St Thomas’ Hospital
St Thomas’ Hospital Stroke Care in 1988

- Patients admitted under care of any of 17 general physicians to any one of 15 wards
- Very little happened acutely
- Brain scans difficult to obtain and therefore rarely done
- Referred to geriatricians for rehabilitation – long wait
- No stroke specialist service either in hospital or community
Stroke Unit Admissions over Time

% of patients going to a stroke unit

Year of Audit

Sentinel Stroke Audit 2010. RCP London
30 Day Mortality Over Time

Year of Audit

% of patients who died within 30 days

Sentinel Stroke Audit 2010. RCP London
BUT despite this......
The Case for Changing Stroke Care

London Stroke Units Sentinel Audit Comparison 2004 and 2006

London Stroke Providers against Sentinel Audit 12 key indicators 2006

Change in London Stroke Providers against Sentinel Audit 12 key indicators 2006 vs 2004 scores
The scale of the problem of stroke in London

- Second biggest killer and most common cause of disability
- Population >8 million
- 11,500 strokes a year in London – 2,000 deaths
Availability of Potential Stroke Providers

The more intense the red, the greater number of providers available to provide service to the area.

There is always at least two providers available to any give area.
Decision to reorganise care

- National Stroke Strategy
- National Stroke Audit
- Darzi review of medical care in London
- Lobbying from London Stroke community
- Ruth Carnall and SHA choosing stroke and major trauma
  - Clear case for change
    - Good evidence as to what should be done
    - A clinical community wanting to see change
Stroke Pathway

- Primary Prevention
- Rapid detection
- Thrombolysis
- Stroke Unit care
- Tailored Community rehab
- Self care/Peer support
- Sign posting
- Access to leisure, Employment, Other opportunities

- Quality information for users and carers
- Quality information for professionals
- A workforce skilled in working with people with stroke
- Preventing a further stroke or TIA

- Acute phase recovery
- Learning to live with a disability
- Living with a disability
Process for implementing change

- Agreement from all London PCTs and formation of JCPCT to support the process and to invest additional £20m/annum
- Project board with representation from commissioners, networks, clinicians, managers, patients, voluntary groups
- Whole system reorganisation
- Split care into hyperacute, acute, transient ischaemic attack and community care
Process for implementing change

- Setting the standards based on evidence
- Development of range of models – consultation with professionals
- Agreement that additional funding paid as enhanced tariff if quality standards met
- Agreement on splitting tariff
- Setting of stages of quality standards with increasing proportions of enhanced tariff paid at each level
Process for implementing change

- Bidding process for delivery of HASU, SU and TIA care. Requiring close collaboration between managers and clinicians from each provider
- External review of applications
- Final decision on allocation of services made by SHA based on geography more than quality
Final model

- 8 HASUs each with their own SUs
  - 124 HASU beds
- Further 16 SUs
- 24 TIA services
- Repatriation where needed up to 72 hours (longer if too unstable to transfer). Financial incentives to move rapidly after referral
- 400 additional nurses needed and about 100 therapists
30-minute blue light ambulance travel time from the hyper-acute stroke units

The green area shows the areas that are within 30 minutes travel time (under ambulance blue light conditions) of a proposed HASU.
Standards

- Predefined minimum rotas for doctors
- Requirement at least daily consultant rounds on HASUs
- Minimum staffing levels for therapists and nurses
- About 60 criteria against which quality of care measured
Implementation of plan

- London Stroke and Cardiac Board
- Role of networks and clinical director
  - Supporting change
  - Inspecting services with commissioners to decide if eligible for enhanced tariff
- Education/training
- Daily activity and performance management
  - Development of local leaders
  - Obligation to submit continuous audit
Successes

- All HASUs now fully open and working effectively
- All SUs passed A1 and A2 criteria
- Virtually all patients directly accessing high quality acute care
  - Admission to HASU
  - Thrombolysis where appropriate
  - Consultant led specialist medical care, stroke specialist nursing care and early access to stroke therapists from the beginning
Successes

- Excellent collaboration between clinicians across London
- Innovative training initiatives
- Closer collaboration between managers, paramedics, hospital clinicians, community clinicians, network staff and commissioners working in stroke than ever achieved before
- Good patient feedback
Workforce Initiatives

- E learning programme nearly complete (Imperial College)
- Simulation centre courses developed and running at 4 of SIM Centres in London
  - Senior doctors and nurses
  - Band 5 nurses and junior doctors
- Conferences for paramedics
- Competencies developed for HASU and SU nurses
Early supported discharge

- Most areas now have access to a service or at the stage of commissioning a service
- Longer term rehabilitation
  - Service provision variable
Evaluation of the reconfiguration

- Process data from
  - London Ambulance Service
  - SINAP
  - London Minimum Dataset
  - Vital signs data
- SDO NIHR funded study
- NHS London Health Economic study
Journey Times

Avg Time from Scene to Hospital

- Charing Cross
- King's College
- Northwick Park
- Princess Ryl Hosp, Farnborough
- Queens Hospital, Romford
- Ryl London (Whitechapel)
- St Georges, Tooting
- St Thomas` University College
- Overall Average
HASU destination on discharge

- Home
- Other
- Stroke Unit
- RIP
Processes of Care
Thrombolysis rates


- Feb-July 2009: 3.5%
- Aim: 10%
- Feb-July 2010: 12%
- Jan-March 2011: 14%
- Jan-July 2012: 18%
Processes of Care

Average length of stay

[Graph showing the average length of stay from April 2009 to August 2011, with a decreasing trend over time.]
London Stroke Survival vs Rest of England

Hazard ratio for survival in London
0.72 95%CI 0.67-0.77 p<0.001
### Cost-effectiveness analysis of the London Stroke Service: Results based on 6438 strokes per annum

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Sensitivity analysis

Results were qualitatively unchanged after undertaking sensitivity analysis on the following:

- Stroke mimics
- LOS in the HASU
- Unit cost per day in the HASU
- LOS in ICU
- Neurosurgery rates
- Discharge destinations
What next

- Much more work on latter part of pathway
- Development of similar model in Midlands and East of England and review of Manchester model
- Keeping going.....
How do we stop everything unravelling?

- How do we persuade CCGs to continue the enhanced tariff?
- How do we keep control of quality and stop trusts cutting resources?
- How do we maintain the close relationship that has developed between commissioners and providers that has been fostered by networks?
- Who will retain oversight and retain responsibility for London stroke?