



Commentary

Challenges of Stroke Care in District General Hospitals in the United Kingdom's National Health Service

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Abstract

Stroke care in the United Kingdom is faced with unique challenges across district general hospitals which aim to provide services for a population of around 100-150,000 people. Delivering a comprehensive stroke service in these areas requires reconfiguration of services, collaborative team work, effective communication, pre-planning, and innovative leadership. In this article we summarize the challenges related to the development of a holistic stroke service in district hospitals across the United Kingdom, and outline some proposals for future development.

 **Tags** United Kingdom, holistic, stroke, National Health Service.

Stroke is the fourth single leading cause of mortality in the United Kingdom (UK)¹. Currently, the care of stroke patients in the UK varies widely depending on where people live. This means that sometimes people living in rural areas might not get timely access to thrombectomy services and neurosurgical intervention due to lack of availability of these interventions in district hospitals. Additionally most district hospitals do not provide an early supported discharge team or neuro-psychology support due to lack of resources to fund these services. The UK National Clinical Guideline for Stroke 2016, published by the Intercollegiate Stroke Working Party, aims to improve the quality of care for all people affected by stroke in the UK, regardless of such features as age, gender, type of stroke, and location². It is a comprehensive document which provides evidence based recommendations for the whole stroke pathway including acute care, neuro-vascular services, rehabilitation, secondary prevention, early supported discharge, follow-up, palliative care, and long term support after stroke.

District general hospitals across the UK are faced with unique and complex challenges³. In spite of diverse career pathways leading to specialisation in stroke medicine, there is a national shortage of physicians specialized in managing stroke patients in the UK. In order to obtain accreditation for this field in the UK, specialist doctors in General Medicine, Care of Elderly or Neurology; need to complete another year of training in stroke medicine in addition to the 5-year training program for their main specialty. This has led to fewer doctors willing to pursue a career in this field in the UK. Stroke medicine is not recognised as a separate speciality in other parts of the world, in which neurologists usually provide stroke treatment. Due to this, international recruitment for physicians primarily specialized in stroke medicine is limited. Additionally, sustaining the adequate number of physicians specialized in stroke medicine has been a great challenge especially in district hospitals as skilled stroke physicians tend to prefer to work in urban areas.

Adding to this problem, the recruitment and maintenance of other stroke specialists including nurses and therapists have huge on-going costs in smaller stroke units. Currently there are many unfilled posts for stroke specialist staff in district hospitals because there just isn't enough skilled staff in the UK to occupy all these posts. Due to lack of adequate staff to provide stroke care because of these vacant posts, district hospitals are sometimes compelled to employ stroke specialists on locum contracts which are far more expensive than the permanent stroke specialist staff. This also makes staff roster designing at all levels, a challenge because of vacant staff posts. In some district hospitals, senior nursing staff works alongside junior nurses to support them and ensure patient safety. Despite this, there usually remains a gap in the adequate specialized staff in stroke units at district hospitals. Stroke specialist nurses and therapists who gain experience in district hospitals ultimately move towards tertiary stroke units where they are provided with far more attractive salaries, adequate teaching, appropriate support, and opportunities for research and innovation.

Inadequate staff and limited resources for stroke have led to smaller stroke units collaborating with larger nearby hospitals, to form a joint stroke service. In those cases with suspected stroke symptoms, people are initially transferred to a hyper-acute stroke unit (HASU) at a tertiary care hospital. The hyper-acute phase (48-72 hours) is then followed by transfer of these patients back to their local hospitals for on-going rehabilitation⁵. The main challenge during the transfer of these patients is to maintain effective care as sometimes vital information can be missed during handovers and patients can get different messages from various specialists. Timely written handover of medical information between nurses at both sites and joint consultant rota enable physicians to maintain some semblance of continuity of care. However, there are instances when patients do not receive the standard stroke care at different hospitals or are lost in follow up.

Furthermore, there are barriers to the implementation of stroke care pathways in district general hospitals⁵. The agreed local protocols suggest transfer of all suspected Stroke patients in the district hospital territory to the nearest tertiary hospital. Sometimes patients do not wish to travel to a tertiary care hospital and are therefore managed at the nearest district hospital. This would mean a deviation from local protocols which is often not ideal. Physicians have to weigh the actual benefits of transporting some frail and elderly patients between hospitals; against the risks of transfer which include long waits,

patient discomfort and frequent change of specialists. Efficient and timely communication between physicians at both sites is vital. Therefore, sometimes physicians at both hospitals would agree that there would be no additional benefit of transfer to the tertiary hospital, especially when thrombolysis is not indicated. This would avoid unnecessary resource expenditure in terms of transport and ensures availability of resources for other patients suitable for thrombolysis.

Age is associated with an increased risk of stroke^{6,7}. The increase in overall life expectancy of the UK population has led to increasing number of elderly population with stroke related disabilities. Social services across the National Health Service are having difficulty coping with the increased number of frail and elderly stroke patients in the UK⁸. Delays in the availability of appropriate long-term social care in local hospitals and care homes leads to a backlog of patient who then have to prolong their stay at the hospital.

Compared to district hospitals, tertiary care hospitals are often equipped with on-site interventional neuro-radiology services. There are provisions for timely within-reach neurosurgical consultations as well as access to neuro-critical units. Due to more accessible facilities and their urban location, these hospitals are much better than district hospitals in terms of staff to patient ratio. It therefore becomes inequitable to compare stroke outcomes in these two different settings^{9,10}. Data often looks impressive for a fully equipped, well-staffed tertiary centre, but the outcome of long-term stroke rehabilitation relies upon the district stroke units which struggle to maintain the national standard of stroke care due to insufficient specialist staff and lack of early supported discharge teams.

Proposals for Improvement

Proposals for changes at the government level

There is an emerging need to shift focus to devising a comprehensive stroke strategy for small district general hospitals. These units are faced with significant challenges in expediting stroke care in light of their given resources. There is also a need for better support mechanisms to help with recruiting and retaining qualified personnel. An environment supporting academic excellence in stroke medicine should be created, nurtured, and resourced at all levels. This will enable staff to benefit from equal opportunities like exposure to teaching, training and neuro-interventional procedures alongside senior support and flexibility of working hours. Allocating extra funds towards reconfiguration of stroke services in rural hospitals and providing the above mentioned extra benefits to staff in these areas will ensure provision of a comprehensive stroke service to the community. Moreover, increasing resource budgets of care homes will improve availability of nursing beds in the community, as well as provide an efficient and timely flow of patients through the system.

Proposals for changes to regulatory bodies

This might be the right time to consider whether the field of stroke medicine in the UK should be recognized as a separate specialty in its own right rather than a sub-specialty. It might be vital to have a separate training program for stroke medicine that would be attainable in a shorter amount of time compared to the current 6 year training program. This would make stroke medicine a far more attractive and stable career option, and may address the on-going issue of national shortage of stroke physicians in the upcoming years.

Proposals for changes at the hospital level

Joint stroke units with central hubs for hyper-acute stroke patients are a feasible approach; however, efforts should be made to involve local stroke physicians to provide a more integrated service for a patient's entire hospitalization¹¹. This can be attained by formulating combined rosters of stroke physicians at both district and tertiary hospitals, which ensure a continuous on call stroke and thrombolysis service provision for the population. Eventually this would improve the confidence of patients and help to establish an integrated care pathway for stroke rehabilitation¹². A rotation of medical and nursing teams across district and tertiary hospitals would help in raising awareness of the challenges faced by district hospitals. It would also provide an excellent opportunity to encourage staff from urban areas to move to rural areas and work there, which might then improve the specialised staff shortage in district hospitals.

Collaborative team-work between primary and secondary health care providers can distribute the workload equally and enable delegation of some components of stroke care to general practitioners. This should be followed by evaluations of these integrated care pathways in order to enable improvement in

stroke outcome measures¹³.

In summary, stroke care across district hospitals in the UK is vulnerable. Currently there are many challenges in providing holistic stroke service in these areas. A re-configuration of services at all levels is urgently required to help resolve this matter.

References

1. Luengo-Fernandez R, Gray AM, Bull L, Welch S, Cuthbertson F, Rothwell PM. Quality of life after TIA and stroke: Ten-year results of the Oxford Vascular Study. *Neurology*. 2013; 81(18): 1588–1595.
2. Intercollegiate Stroke Working Party. National clinical guideline for stroke, 5th edition. London: Royal College of Physicians 2016.
3. Gebhardt J, Norris T. Acute Stroke Care at Rural Hospitals in Idaho: Challenges in Expediting Stroke Care. *J Rural Health*. 2005; 22(1): 88–91.
4. Langhorne P, Duncan P. Does the Organization of Postacute Stroke Care Really Matter? *Stroke*. 2001; 32:268–274.
5. Joubert J, Prentice L, Moulin T, Liaw S, Joubert L, Preux P et al. Stroke in Rural Areas and Small Communities. *Stroke*. 2008; 39:1920–1928.
6. Wang Y, Rudd AG, Wolfe CDA. Age and Ethnic Disparities in Incidence of Stroke over Time. *Stroke*. 2013; 44:3298–3304.
7. Walker RW, McLarty DG, Masuki G, Kitange HM, Whiting D, Moshi AF et al. Age specific prevalence of impairment and disability relating to hemiplegic stroke in the Hai District of northern Tanzania. *J Neurol Neurosurg Psychiatry*. 2000; 68: 744–749.
8. Gorsky M. The British National Health Service 1948–2008: A Review of the Historiography. *Soc Hist Med*. 2008; 21(3): 437–460.
9. Bermejo F, Vega S, Morales JM, Diaz J, López L, Parra D et al. Prevalence of stroke in two samples (rural and urban) of old people in Spain. A pilot door-to-door study carried out by health professionals. *Neurologia*. 1997; 12: 157–161
10. Correia M, Silva MR, Matos I, Magalhaes R, Castro Lopes J, Ferro JM et al. Prospective community- based study of stroke in Northern Portugal. Incidence and case fatality in rural and urban populations. *Stroke*. 2004; 35: 2048–2053.
11. Baeza J, Fraser A, Boaz A. Integration in stroke services: the challenges for primary and community care services. *London J Prim Care*. 2012; 5(1): 24–28.
12. Sulch D, Perez I, Melbourn A, Kalra L. Randomized Controlled Trial of Integrated (Managed) Care Pathway for Stroke Rehabilitation. *Stroke*. 2000; 31:1929–1934.
13. Allen D, Rixson L. How has the impact of ‘care pathway technologies’ on service integration in stroke care been measured and what is the strength of the evidence to support their effectiveness in this respect? *Int J Evid Based Healthc*. 2008; 6(1): 78–110.



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