Department of Health

ASSET

Action on Stroke Services: an Evaluation Toolkit

Case Study Pack

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Case Study Pack

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Transient Ischaemic Attacks (TIAs)

Case Study - TIA Clinic

Bradford Hospital NHS Trust

Bradford Hospitals NHS Trust established a stroke rehabilitation unit in 1997 with supporting guidelines to improve consistency of medical care during the first few days of stroke. Concerns about lack of consistency in the diagnosis and referral of patients who had experienced TIAs led to the idea of creating a combined physician and surgical TIA clinic embedded within vascular outpatients. The clinic was opened in 2000 and established by reconfiguring existing services so no additional funding was required. Access to the clinic was rolled out in a progressive manner with referrals first being taken from the medical assessment unit, then from casualty and finally from primary care, this allowed the service to grow at a manageable rate.

TIA guidelines for the clinic were developed jointly with the local PCTs and hospital trust around three principles: start aspirin immediately; stop driving; and refer immediately to the TIA clinic. Referral is facilitated by a standard proforma available in paper format or as an electronic template. This allows referrals to be screened and patients with details suggesting low probability for TIA (eg fall with loss of consciousness) redirected to an alternative clinic. The TIA clinic is organised as a one-stop-shop service in which patients can expect a diagnostic assessment, investigations and an individualised treatment plan on the same morning of attendance, including a consultation with a vascular surgeon if carotid surgery is indicated.

There is a big emphasis on connecting with primary care and the wider community of Bradford. The clinic has been renamed the ‘mini-stroke clinic’ to convey clearly the nature of TIA to patients. Patients also have access to a wide range of information leaflets. A formal education programme for colleagues in hospital and general practice has also worked to ensure that the whole community recognises the importance of what a TIA is, what to do if one occurs and how to avoid them.

An audit of the first year of the TIA clinic (February 2000-January 2001) showed that the clinic had seen 310 patients who waited an average of 6.4 days for their appointment. The clinic diagnosed cerebrovascular disease in 80 per cent of patients, identified 60 patients with undiagnosed or poorly controlled hypertension, 30 patients who would benefit from treatment with statins and 10 new cases of atrial fibrillation. These results point to the clear benefits of TIA clinics in identifying and intervening when patients present with vascular risk factors. These interventions have a well developed evidence base and therefore there is an expectation that stroke incidence will be reduced.

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Case Study – TIA Clinic

Developing neurovascular services at St Thomas' Hospital, London

The aim of this project was to reduce the delays between a patient presenting with symptoms suggestive of a TIA and a specialist review within a neurovascular clinic. The clinic has redesigned referral pathways, altered clinic spots, produced TIA pathway guidelines, provided information for GPs and A&E staff and will be appointing a TIA specialist nurse.

The neurovascular clinic has been redesigned to provide longer clinic slots for new referrals at the beginning of the clinic to allow time for required investigations to be completed on the same day as the clinic. Dedicated MRI, CT and Doppler scan slots have been established early in the afternoon. These early slots for investigations have facilitated rapid, same day assessment and admission arrangements with the vascular surgeons for those patients with carotid stenosis.

A single referral point has been introduced for clinic referrals from all sources to prevent delays within the Trust's appointment systems. A TIA guideline has been produced to assist with decision making based on the patient's clinical symptoms and aiming to reduce the level of inappropriate referrals to the clinic. This was shared with A&E staff and local GP services. Educational opportunities were created within the PCT Protected Learning time for GP's and involved practice nurses and other members of the PCT team. This incorporated incidence data, need for urgent referral and review and how to access the clinic.

The clinic is run jointly by a stroke consultant, neurology consultant and stroke specialist nurse. The role of a specialist TIA nurse will shortly be advertised. The role will involve assessing patients following a suspected TIA, booking appropriate patients into clinic, ordering investigations, providing information and support to patients and health care professionals for secondary prevention both prior to and following the clinic visit. It is anticipated this role will reduce inappropriate referrals, ensure good secondary prevention strategies prior to clinic and provide information on TIA and stroke for local practices.

Good results have been achieved. For example, a recent audit demonstrated a drop in delays from referral to clinic from 32 to 10 days from the initial changes. The team have plans to further reduce this time to less than 7 days. There are also plans to implement a risk scoring tool to identify those TIA patients at greatest risk of a stroke within the first 7 days and arrange urgent admission.

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Case Study – Providing Thrombolysis Treatment

Royal Bournemouth and Christchurch Hospitals NHS Trust

In May 2004, Royal Bournemouth and Christchurch Hospitals became one of 14 Trusts in the UK (and only the second District General Hospital) to embrace thrombolysis as a treatment for acute stroke.

Thrombolysis is only suitable for five to ten per cent of stroke patients. Patients must display signs and symptoms of acute stroke and this clinical assessment must be backed up by an urgent brain scan soon after arrival at hospital. Moreover, thrombolysis must be administered no more than 180 minutes after the patient first shows symptoms of a stroke but the sooner it is delivered the more likely the treatment is to improve clinical outcome. Therefore, coordination between primary care, the ambulance service and the team based within the Royal Bournemouth Hospital has been crucial to ensuring the success of the project.

The Trust has been working closely with Dorset Ambulance on this project. Since November 2004 the Dorset Ambulance service have been using the 'FAST-Track' protocol, a validated stroke assessment tool, for recognising signs and expediting delivery of patients with suspected stroke directly to the Royal Bournemouth Hospital. On arrival at A&E the Stroke Response team performs a rapid assessment of the patient's suitability for thrombolysis. Eligible patients are then given a CT scan following protocols drawn up between A&E staff, porters, radiologists and radiographers to ensure minimal delay.

Whilst the patient is being assessed the Bed Manager will be notified and will attempt to organise a bed on the Acute Stroke Unit. Following a final decision on whether to thrombolyse by a Consultant Stroke Physician and treatment, the patient is transferred to the Acute Stroke Unit for monitoring.

On average, one patient a month has received thrombolysis and many others have benefitted from the early assessments and admission to specialised care. The Trust hopes to eventually thrombolyse around 10% of patients.

The FAST-Track initiative won the Gold Award for Innovation in the Dorset and Somerset NHS Awards 2005. The success of the service has also encouraged others across Dorset to start providing thrombolysis for stroke. Poole Hospital started providing its own service in February 2005 and Dorset County Hospital followed in the Autumn.
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Multidisciplinary Stroke Services

Case Study – Integrated Stroke Services
Stroke Northumbria

Stroke Northumbria has developed an integrated stroke service crossing several organisational boundaries to provide consistently high quality care to a population of about 500,000 people across a large geographical area in the North of England. The service aims to provide a range of services for people with stroke and their carers including:

- rapid access to TIA (transient ischaemic attack) and non-disabling stroke clinics to support primary care in diagnosis and prevention. An innovative nurse led telephone service allows prioritisation of high risk cases and early arrangement of investigations.
- multidisciplinary acute inpatient stroke units on two DGH sites caring for stroke patients in the first 7-10 days
- organised multidisciplinary inpatient local stroke rehabilitation units on DGH and community hospital sites
- a combined acute and rehabiliation unit on our third, and smallest, DGH site which rates particularly highly in the National Stroke Audit
- an evidence based multidisciplinary inpatient care pathway used sucessfully across all units in the service
- an early supported discharge service of home based rehabilitation in North Tyneside
- longer term rehabilitation and support through Day Hospitals and community rehabilitation teams
- nurse-led stroke review clinics on DGH and community hospital sites
- an information and support service for stroke patients and their carers developed in conjunction with users
- a community pathway which ensures appropriate ongoing monitoring and management of physical, medical and social needs
- locality based patient reference groups which inform service evaluation and development

A multidisciplinary stroke executive group leads the service and has representation from management and frontline staff in primary and secondary care, social services, the charitable sector, and from patients and carers.

Stroke Northumbria has gained considerable experience in the evaluation, planning, implementation and review of major organisational change with respect to stroke services.

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Case Study – Multi Disciplinary Stroke Pathway

STEP – Stroke Team for Every Person, The Royal Free Hospital Stroke Service

The Royal Free Hospital has managed to turn around its stroke services in 5 years: In 1998/99 the National Sentinel Stroke Audit showed that the stroke service at the Royal Free Hospital was among the worst in the country. There were particular inequalities in the stroke service available in terms of age and geographical location. For example, there was no rehabilitation for people under the age of 65, requiring patients to be referred to Regional Rehabilitation Units outside the locality, with family and friends often having to travel over an hour to visit them. In sharp contrast, by 2004 it was rated one of the best. The Trust have achieved this by setting out to provide stroke patients with a comprehensive, multidisciplinary, evidence based specialist stroke service (including prevention) for all patients admitted or referred to the Trust, regardless of age, location or severity of stroke.

A dedicated stroke unit was established in 2000, with now 10 acute beds and 12 rehabilitation beds. The unit provides a dedicated specialist stroke service for all, with a non-selective admission policy. As a result, mortality rates have fallen from 35% to 14% (compared to a national average of 24%). The unit also focuses on making sure that patients and carers receive plenty of education and support through a case co-ordinator system, a localised stroke booklet and a patient information group. Patients and relatives are fully included in the rehabilitation process with regular goal setting and family meetings. The Trust also operates a weekly one-stop TIA clinic.

Furthermore, there have been a wide range of positive service outcomes; the stroke service has provided a training placement for medical, nursing and therapy staff. There has also been an improvement in retention and recruitment of staff. The unit has had an active role in developing and sharing best practice through Trust study days, an Annual National Stroke Conference and a rolling multi disciplinary and collaborative team working teaching programme.

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Case Study – Mutlidisciplinary Care Pathway
Wirral Stroke Service Pathway

The Wirral Stroke Service Pathway uses a multidisciplinary care pathway to ensure that simple, effective treatments are put into practice to benefit patients. About 90 staff are involved in the pathway, which has achieved the following:

- assessment and treatment is delivered by stroke specialists
- all Wirral acute stroke unit patients receive a bedside swallowing assessment. This can be compared to a national average of only 55% who receive such an assessment)
- earlier CT brain scanning. In Wirral 90% of patients receive early CT scans within 24 hours, compared to a national average of 50%
- increased use of simple effective treatments e.g. aspirin. All appropriate patients now receive aspirin in Wirral compared to a national average of 85%
- more information is given to patients at a time more appropriate for them i.e. early in their stay. 100% of patients in Wirral receive information compared to a national average of 50%
- hidden stroke problems are found - especially perceptual and cognitive
- reduced length of stay in the Stroke Rehabilitation Unit (from 61 days to 42 days)
- low incontinence rates on discharge (21% compared to national average of 40%).

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Case Study – Multidisciplinary Care Pathway

South Devon Stroke Service

The South Devon stroke service review was conducted in 2004 in response to the publication of the Older People's NSF. This review involved an acute trust, 3 PCTs and 2 social service organisations and led to considerable change in the way that services are delivered.

The change required the development of a care pathway for stroke, which recommends admission for all stroke patients, promotes evidence based stroke care, recommends timely transfer from acute care to rehabilitation to home, and includes enhanced links with social care. Linked to this was the development of a stroke rehabilitation unit at a community hospital in Teignbridge PCT to increase stroke bed capacity and reduce pressure on the acute service. A consultant therapist was appointed to lead the rehabilitation unit and develop community services. Staff that had specialist skills in stroke care in the community were given additional training to enable faster discharge of patients and better longer term rehabilitation

The service has made efforts to address the needs of people after stroke and their families. A patient and public involvement group has been established which oversaw a focus group of recent service users and the use of the RCP user questionnaire. This group is also leading the development of comprehensive patient information literature and a peer support service.

Finally, a rapid referral process for assessment of people after TIA has been set up and a thrombolysis service implemented.

These changes have had some impressive results. For example, the length of stay for stroke patients in the acute hospital has reduced from an average of 20 days to under 10 days. Moreover patient feedback has been positive, 42 per cent of respondents to the Royal College of Physicians user questionnaire rated their care as 'excellent' – this was well above the national average of 33 per cent. The 2004 National Sentinel Audit for Stroke rated the South Devon service 5th of all the Trusts in England.

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Workforce

Case Study – Development of Consultant Nurse in Stroke Care

Winchester and Eastleigh NHS Healthcare Trust

The Trust has developed the role of Consultant Nurse in stroke care to address what was seen as a lack of clinical expertise and strategic leadership in stroke services in Primary Care.

The role since its inception has worked outside the traditional boundaries of the nurse. For example, the post holder sees new patients, as direct referrals into the TIA clinic using the same referral criteria as the Consultant Physician. The Consultant Nurse is also an independent and supplementary prescriber. The role has extended so that the nurse is a consultant for a group of patients in the Acute Hospital and carries out domiciliary visits. The post holder is continuing to expand the role beyond traditional expectations.

Being the first nurse to work at this level meant that the Trust had to spend a considerable amount of time developing supporting protocols. Moreover it took time for the nurse to be truly accepted as a Consultant. However, the development of a Consultant Nurse has paid enormous dividends; the waiting time for the TIA clinic has been reduced from an average of 7 weeks to only 1 week. The service is now able to run continuously as the Consultant Nurse and Consultant Physician in Stroke Care are able to deputise for one another. Patient feedback has also demonstrated a high level of satisfaction with the Consultant Nurse role.

The Trust now hoped to develop the registrar role to facilitate succession planning for future post holders.

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Case Study – Practice Development Unit Accreditation
Winchester and Eastleigh Healthcare NHS Trust

The Combined Stroke Unit Team in Winchester first opened in 1999. By 2000 the team felt there was a need alter the way the unit operated in order to bring about further service developments. Staff morale was at a low due to the high dependency of ward patients and the lack of available rehabilitation equipment. The team also lacked a clearly defined structure and staff roles.

In response to this identified need and coupled with a strong organisational desire to develop competent and skilled practitioners within a positive, professional and safe cultural environment, the team decided to proceed down the Practice Development Unit path.

Working towards and successfully gaining unconditional PDU accreditation twice, supported by Bournemouth University, has been central to the development of a now highly motivated team who take responsibility for the quality of their service. The stroke service has a vision for future developments that is informed through regular feedback from service users, stakeholders and team members. Seeking accreditation has also enabled robust evaluation of the unit's work. The Practice Development process is now embedded in the culture of the service and has become part of 'the way we work'.

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Case Study – Community Stroke Rehabilitation Team

East Hampshire, Portsmouth PCTs, Portsmouth Hospitals NHS Trust, Hampshire and Portsmouth City Social Services

Project leaders from the stroke service decided to utilise the emerging clinical evidence base regarding the effectiveness of community stroke rehabilitation schemes to help stroke survivors feel better prepared for their transfer home. They proposed that a slow-stream stroke care ward close as an inpatient resource and the pay and non-pay costs be transferred to develop a Community Stroke Rehabilitation Team. Guernsey Ward (20 beds) would become the inpatient stroke rehabilitation ward for Portsmouth City and South of East Hampshire patients. The team would facilitate early transfer home for patients who:

- Have a confirmed diagnosis of new acute stroke
- Are an in-patient aged 65 years and over
- Are registered with a GP in Portsmouth City or the south of East Hants.
- Have an in-depth, multi-professional assessment by the CSRT
- Have been deemed as medical stable as possible and secondary prevention measures have been assessed and instigated before transfer home.
- Have had family and environmental constraints considered
- Liaison with any services previously involved with the patient has occurred

The team began in 'mini' form on the 28th February 2005 and full closure of the ward with staff transfer was achieved by 16th May. There was a slow build up of the team and concurrent running down of the ward so capacity was not lost within the system at a busy time of year. The team consists of a team leader, a stroke liaison nurse and team of nurses who work across 7 seven days and cover 7.30am to 9pm, Physiotherapists, Occupational Therapists and a Speech and Language Therapist. The new role of Associate Practitioner in Stroke has been developed and 3 APSs work along side all team members. The patient's medical care is transferred back to their own GP. The length of stay with team has been set at a maximum of 16 weeks. The average has been 8 weeks.

Patients have received very active rehabilitation and the results have been pleasing. Mid February 2006, 74 patients have been discharged after receiving community stroke rehabilitation. Moreover, stroke survivors have voiced a high degree of satisfaction. It is envisaged that further teams will be developed to extend the opportunity for patients to receive early stroke rehabilitation at home across the district. This first team, will therefore provide invaluable information and pave the way for further service redesign.

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