

Royal College of Speech and Language Therapists

Policy statement: The specialist contribution of speech and language therapists along the care pathway for stroke survivors

November 2007

INTRODUCTION

Brain damage following a stroke can cause an impairment of speech, language and swallowing abilities, resulting in the three following conditions which speech and language therapists are uniquely qualified to treat. **Dysarthria**, affecting the ability to produce speech, **dysphasia**, which affects the ability to understand and use language to communicate and **dysphagia**, which is a muscular disorder effecting the ability to swallow, drink and eat. Dysarthria and dysphasia can be grouped together as a communication disorder.

These serious disabilities affect the individual's ability to participate in social interaction, diminish their quality of life and can be life-threatening. There is little public awareness about the devastating impact of communication disability, and this can lead to increased feelings of isolation, withdrawal for the community and dependence on others to meet their needs.

Speech and language therapists (SLT's) are the only professionals qualified to diagnose, assess and provide a programme of care to address these communication and swallowing needs. Their intervention is integral throughout all stages of the stroke care pathway.

DEFINITIONS

Dysphagia: A weakness of muscle tone which affects the ability to coordinate the muscles involved in swallowing.

Dysarthria: A muscular difficulty in producing or sustaining the range, force, speed and coordination of the movements needed to achieve clear speech.

Dysphasia: An acquired language disorder, caused by brain damage, which affects the ability to communicate through speech, signing and writing as well as affecting comprehension.

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1. Overview

Speech and language therapists play a vital role at all stages along the care pathway. SLTs are core members of the team in the immediate care, and the long-term rehabilitation of stroke survivors. They are the experts in the management of communication and swallowing problems after a stroke, specifically dysphagia, dysarthria and dysphasia. All individuals with these potentially serious problems must receive an assessment, diagnosis and a planned programme of therapy by a qualified SLT. They are core members of the specialist stroke care team, caring for all individuals with communication or swallowing problems across the entire stroke care pathway, including the acute stage; transfer of care, community and rehabilitation services, and in all settings. They have a significant role in training staff and carers at all stages in the care pathway in order to deliver a quality assured service to meet the needs of service users.

2. The acute stage of the stroke pathway

Speech and language therapists are core members of the multidisciplinary team and have a key role to play in the hours and days following a stroke in the identification, assessment and management of potentially life-threatening eating, drinking and swallowing difficulties.

SLTs have a key role in training other clinical staff to carry out the initial bedside screen for dysphagia.

SLTs work with family members, professional staff and carers to develop verbal and non-verbal strategies which can provide a vital “communication – lifeline” for the stroke survivor. These strategies enable the survivor to optimise their remaining communication ability, make choices, get their needs met and to cope better with their experience.

SLTs have a key role in training other clinical staff to develop the skills needed to understand the communication needs of the stroke survivor.

It is recommended that there should be at least 1 full time equivalent speech and language therapist per ten beds in every stroke unit.
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There is clear evidence to show that mortality and morbidity is reduced within a specialist multidisciplinary stroke unit framework. Early intervention is crucial and can have maximum effect on addressing language and swallowing impairment during the acute phase of stroke recoveryⁱ. SLTs inclusion in the team membership has been demonstrated to have a direct impact on the length of stay in hospital and the outcomes of the person who has had a strokeⁱⁱ. Evidence shows that the outcomes

for individuals who receive therapy are superior to those for those untreated in all stages of recoveryⁱⁱⁱ.

Following discharge, stroke survivors often experience problems in accessing speech and language therapy. Data from south London acute hospitals shows that following hospital discharge only 14% of patients in need received speech and language therapy 3 – 12 months after discharge (xxi). There is further evidence of this from a survey of stroke survivors by The Stroke Association. These indicate the satisfaction with and value placed by patients and carers on the support received from speech and language therapy services particularly at the stage of transition.

2.1. Dysphagia management

Speech and language therapists have a key role to play in the hours and days following a stroke in the management of eating, drinking and swallowing difficulties. They play an important role in training other healthcare professionals, usually nurses and junior doctors to carry out the initial screen for dysphagia

The SIGN guidelines 2004 recommend that all stroke patients be screened for dysphagia before being offered food or drink.

Screening will indicate those individuals with feeding and swallowing problems, who then need to receive a full assessment by the SLT.

Multidisciplinary management of dysphagia ensures that the patient receives in-depth assessment and appropriate treatment^{iv}.

Following the bedside screen, speech and language therapists undertake a risk assessment in relation to current eating and drinking, determine the impact of the stroke, determine the safety of food trials and select methods and safety of further swallow assessments. After this, the SLT will make a clinical judgment with regard to whether they proceed in assessing the individual with food and liquid^v. SLTs will consider modifying food and liquid consistency, temperature, taste and texture to achieve improved swallow function and efficiency.

National guidelines on texture modification and fluid thickness have been agreed between dieticians and SLTs^{vi}. Where appropriate, an SLT will assess the swallowing process using a videofluoroscopy of swallow or a fiberoptic endoscopic evaluation of swallowing (FEES). These techniques measure swallowing function to determine the effectiveness and safety of the swallow. The RCSLT has produced guidelines in relation to FEES.

Benefits of speech and language therapy

Patients with dysphagia who have access to speech and language therapy have much better outcomes than those who are not treated^{vii}. Speech and

language therapy interventions reduce the impact of the dysphagia and improve nutritional intake^{viii}. This can reduce the occurrence of pneumonia, respiratory infection and undernutrition^{ix}. Key indicators such as functional outcome, quality of life and ability to return to work are highly correlated to early intervention and the number of treatments available to stroke patients with dysphagia

Speech and language therapy can minimise preventable secondary respiratory complications, and therefore shorten the length of hospital stay through specialist evaluation, intervention and strategies to maximise swallowing abilities. The incidence of aspiration pneumonia due to dysphagia can be reduced from 6.7% to 0% through effective management^x.

SLT's can also help to reduce the length of hospital stay by up to 5.5 days through working with the dietitian to manage the individual's nutritional intake. Malnourished states can lead to increased complication rates, a poorer functional outcome, and a prolonged hospital stay, on average 5.5 days longer than other individuals^{xi} (x). SLTs work closely with dietitians to ensure dysphagia does not contribute to malnutrition. National guidelines on texture modification and fluid thickness have been agreed between dietitians and SLTs^{xii xiii}.

SLTs can help reduce patient morbidity. There is a complex relationship between eating, swallowing and breathing. Impairment in swallowing can put the individual at risk of aspiration^{xiv} and consequently aspiration pneumonia, as well as compromise nutrition and hydration; leading to an increased length of stay due to feeding difficulties^{xv xvi}. Aspiration is the leading cause of pneumonia in intensive acute care and contributes significantly to the overall morbidity and mortality of the person who has had a stroke^{xvii xviii xix xx}.

If provision of SLT services within stroke units were better, it is likely that there would be fewer delayed discharges. The National Audit Office found that access to speech and language therapists is patchy within and between stroke units, even though such access is likely to result in fewer delayed discharges^{xxi}. Studies have shown that targeted speech and language therapy intervention is beneficial at each stage in recovery^{xxii xxiii}.

SLTs can help reduce the distress and frustration of the individual and his family. Dysphagia is a distressing symptom to the patient and carers and is associated with poor recovery, pressure sores and depression. Prompt speech and language therapy assessment can promote effective communication strategies and advise on safe introduction of oral intake

2.2. Communication disability management

All people who have had a stroke should be assessed for communication disability. SLTs design therapy programmes to maximise the individual's communication skills and help those around them to understand them.

SLTs work with alternative forms of communication; appropriate questioning, use of gesture or symbols, and how to use reading, writing and drawing to support language.

Assessing the nature and severity of comprehension and expressive language disorder is important in order to determine the level of competence, which is important when considering consent and involvement in therapy. This should be considered an issue of patient safety.

Communication therapy is carried out on an individual or group basis. It has been shown to be beneficial to provide intensive therapy, which can optimise progress.

Communication problems affect all aspects of life including; relationships, the individual's ability to access services, the level of independence achieved, and ability to control aspects of an individual's life^{xxiv}. Dysphasia is a life-changing condition, which affects both the individual and others around them. Living with dysphasia involves individuals and those in their environment in a process of adaptation to change, in terms of communication style, lifestyle, and sense of self.

Dysarthria is an impairment of the function of the muscles of speech. These changes affect the production or sustaining of range, force, speed and coordination of movements needed to achieve breath control for phonation, resonance and articulation of speech. Speech sounds abnormal and may be unintelligible. SLTs assess the level of impairment and its affect on communication.

Communication needs vary within the limitations of the individual and their environment, and strategies for communicating will vary with the needs of the individual from writing, speech aids to slowed speech strategies.

Carers will need to be assisted to learn how to understand and respond to altered speech or use of alternative means of communication, such as a light writer. Accurate assessment is required to identify cognitive and comprehensive abilities of the patient which may be hidden by the speech deficit

Benefits of speech and language therapy

Early intervention to support communication can avoid depression and improves the patient's experience of care^{xxv}. The severity of the communication impairment impacts on patient's overall health. Research shows communication problems, as in dysarthria, impact on the well-being of the individual and affect their quality of life^{xxvi}. Research shows the health-related quality of life of people with communication problems after stroke is significantly affected by their emotional distress, the severity of their communication impairment and their overall health (xxv). Early intervention on humanitarian grounds is therefore crucial.

Communication difficulties can prevent individuals from making choices, getting their needs met and accessing services that they need, and can contribute to unsafe consenting and impacts on patient safety.

People who have had a stroke and who have access to speech and language therapy have better functional outcomes than those who are not treated^{xxvii}. Key indicators such as functional outcome, quality of life and ability to return to work are highly correlated to early intervention and the number of treatments available to people who have had a stroke^{xxviii}. Evidence in the national service framework (NSF) for older people recognises that early, expert and intensive rehabilitation in a hospital stroke unit improves the long-term outcomes for people who have had a stroke. It is now well accepted that stroke rehabilitation in an organised hospital stroke unit leads to better outcomes than those from a general medical hospital ward^{xxix}. Similarly the SIGN guidelines highlight the potential benefits from speech and language therapy services for people with dysphasia.

Communication therapy helps to improve the well-being of stroke survivors and their carers. By providing early and ongoing assessment and intervention and by providing effective communication strategies there may be a reduction in the negative emotional responses (such as fear, anxiety, frustration) and an improvement in the psychosocial well-being of the person and carers^{xxx}. It is usual for speech and language therapy intervention to target impairment and communication issues in the acute stage and to focus on the individual's life goals in the second phase (xxiv).

Targeted speech and language therapy can reduce impairment and consequently improve the ability to communicate. The updated Cochrane review has identified studies that indicate the positive influence of speech and language therapy involvement. There have been more than 100 single case and group studies examining the impact of SLT on aphasia. Overviews indicate targeted speech and language therapy can reduce impairment and consequently improve the ability to communicate.

Staffing levels on an acute ward

The RCSLT recommends a minimum of one whole-time equivalent SLT per 10 patients on an acute stroke ward. If the ratio of SLTs per 10 patients fell below this then it would preclude timely assessment, appropriately intensive treatment and full involvement of carers and family members. There are wide variations in the staffing levels on stroke units. In a 2006, a RCSLT survey of speech and language therapy stroke services considered to have models of best practice analysed the ratio of SLTs to ten people who had a stroke^{xxxi}.

3. Transfer of care to the community

With the implementation of early supported discharge from stroke units it is essential there are adequate SLTs working in the community to provide timely

access to speech and language therapy to meet the communication needs of people who have had a stroke and/or to address management of swallowing disorders. It is important that there is appropriate transfer of care to SLTs working in community rehabilitation teams when patients are discharged from hospital. Research indicates that there exists a hospital/community gap that results in individuals waiting for follow up speech and language therapy in the community or not receiving therapy for some time (xxiv). On discharge from hospital, people who have had a stroke should receive appropriate information to allow them to contact the speech and language therapy department if they have any concerns on transfer home.

One third of stroke survivors have persistent speech, language or communication problems. More than half of individuals have been described as having dysarthria in the early stages. A high proportion do recover in the first two weeks but approximately 15% will have significant speech impairment. Annually, 60 people per 100,000 population will suffer dysphasia following their first stroke

3.1. Dysphagia

Swallowing problems persist in around 11% of people who have had a stroke at six months post stroke^{xxxii}. These symptoms are associated with other health consequences (outlined in section 2.1 above) e.g. malnutrition, pressures sores and pneumonia.

It is essential that following a stroke people who present with persistent dysphagia are transferred to community rehabilitation including SLTs with the specialist skills to address dysphagia.

3.2. Communication disability

For all stroke patients with communication difficulties, a seamless transition to SLT services in the community is essential. People can experience communication difficulties after stroke with few other physical signs and these people may be discharged after only a few days on the acute pathway.

The risk for these patients is that the significance and impact of their communication problems may not be appreciated. There are particular risks if the individual is living alone, as people can experience disorientation with communication impairment after stroke. Access to speech and language therapy in the community should therefore be timely and seamless.

4. Rehabilitation within the Community

It is essential that regular, sustained and adequate speech and language therapy is provided for stroke survivors within their local community. Individual and group sessions, including intensive therapy where appropriate should be available.

A significant proportion of people who have had a stroke will have an ongoing communication disability and SLTs continue to play a role in the rehabilitation phase of the pathway. For some people, this therapy may be on a rehabilitation unit, but for many people this occurs within the community.

Surveys of stroke patients and carers by The Stroke Association and Connect have concluded that a high proportion of patients discharged from hospital do not have access to speech and language therapy; that communication disorders impact on quality of life of patients as well as carers; and if speech and language therapy is available the frequency of treatment is seen as inadequate.

4.1. Dysphagia

Within community services, SLTs will be involved with a percentage of people with persistent dysphagia after a stroke. These people may be in their own home or living in a nursing or care home.

Supporting evidence

There have been systematic reviews investigating dysphagia management in acute stroke^{xxxiii xxxiv}. Research shows the incidence of dysphagia is higher in more severe strokes and therefore amongst those who are in residential care. Access to speech and language therapy in nursing and care homes prevents further health complications, prevents unnecessary admission to hospital and reduces mortality rates.

4.2. Communication disability

Following discharge, stroke survivors often experience problems in accessing speech and language therapy (xxiv). Volunteers working in the community do not always have a good understanding of how to communicate with an individual with dysphasia or dysarthria. This results in a reduction in the ability of the individual to access services in the community.

There is good evidence to highlight that people with dysphasia benefit from speech and language therapy. In a study of global dysphasia, people who had had a stroke were randomised to either intensive daily therapy or regular therapy for three sessions per week. It was found that more individuals who were in the intensive group achieved significant improvement^{xxxv}.

A meta-analysis (which included group quasi-experimental studies) concluded that outcomes for treated people who had had a stroke resulting in communication difficulties were superior to those for untreated individuals in all stages of recovery and especially in the acute stages^{xxxvi}.

Two additional randomised controlled trials have demonstrated the benefits of intervention for people with dysphasia following stroke, with therapy sessions of three hours per week over six months and five hours per week for four months^{xxxvii xxxviii}. Studies show patients with dysphasia following a stroke report to have increased

distress, increased communication disability and reduced involvement in activity and co-morbidity, which predict poorer health-related quality of life.

Ongoing Management

People with a communication disability as a result of stroke should have their suitability for further intensive speech and language therapy assessed by an SLT. This should include assessment focusing on the nature and extent of the speech and language impairment and level of preserved abilities as well as functional and pragmatic aspects of communication including compensatory strategies and psychosocial wellbeing.

Where achievable goals can be identified and continuing progress demonstrated, people with communication difficulties should be offered appropriate treatment with monitoring or progress. Having agreed appropriate goals with the individual, speech and language therapists will be involved in providing therapy, which should be intensive for maximum benefit^{xxxix}.

Trials suggest the speech and language therapy should be for between two and eight hours a week. SLTs work on the functional and psychosocial aspects of communication and assist individuals to return to work or participate in their life roles. To promote generalisation of learned strategies, therapists involve communication partners in therapy and conduct therapy within natural communication environments^{xl}.

Communication aids and Computer Based Therapy

Following a stroke, individuals can experience a range of communication problems, such as unintelligible speech or word-finding difficulties. SLTs have a role in assessing the suitability of a person after a stroke for alternative augmentative communication (AAC) or other communication aids to increase their independence and participation in the wider community.

There is an increasing use of computers in delivering speech and language therapy and research evidence to support this is growing.

Computer-based therapy can be delivered either during face-to-face therapy time or with remote support from a therapist. This provides greater access to speech and language therapy. Improvements in performance over a number of communication modalities can occur (xxxvi)^{xli}.

5. Completion of therapy and review

The Government's policies relating to long-term conditions, chronic disease management and self-management enable SLTs to play a continuing role with the patient and their family. The changing situation of the patient e.g. returning to work, loss of a spouse etc may necessitate reassessment of communication competence and the assistance required. Following discharge from therapy, if a person who has had a stroke presents with further complications or significant

change in their communication/swallowing ability they may be referred back into the service for further treatment if this is deemed necessary.

SLT staffing levels - community

In the community setting SLTs manage a diverse caseload. SLTs, whilst specialising in stroke, may additionally see people with other neurological and long-term conditions. RCSLT workforce-planning projects have attempted to establish notional caseload figures^{xlii}. A recent survey of best practice speech and language therapy stroke services shows significant variation in the levels of SLTs per 100,000 of the population^{xliii}.

It is very important that **services are flexible and address the needs of the local population**. A service must address the demographics of the area and take into account the physical geography, which makes it difficult to give a recommended ratio per population.

With the implementation of early supported discharge into the community from stroke units it is essential that there are adequate numbers of SLTs to meet the needs of people who have had a stroke.

<p>The prevalence of dysphasia of approximately 200 per 100,000 in addition to the annual incidence needs to be considered. It is estimated that in terms of population need each person who has had a stroke will require a an assessment, one third will require regular therapy and a smaller proportion will require either intensive therapy whilst others need to be reviewed.</p>
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WORKING WITH OTHERS

At the acute stage, SLTs work with family members, health professionals and carers in the use of verbal and non-verbal strategies to provide a vital “communication–lifeline” which enables stroke survivors to extend their residual communication skills and remain as independent as possible.

This training role extends to other members of the multidisciplinary team, health care assistants, residential staff, volunteers and other agencies who work with people with communication problems in the longer term^{xliv}.

SLTs play a valuable role in training other professionals, particularly staff in residential and nursing homes, to maintain safety with eating and drinking, and to prevent aspiration and the development of pneumonia or malnutrition which can cause readmission to hospital.

For younger stroke survivors, developing communication skills to use with others in a working environment (if they return to work) will need to be considered.

SLTs work in close partnership with other agencies such as voluntary organisations, social services, adult education services and other public and professional groups.

These organisations can support the stroke survivors' health related quality of life by commissioning RCSLT approved communication skills training for their members, thus equipping them to better understand the stroke survivors communication needs and therefore enabling them to maintain their independence within the community.

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