National service model for an integrated community stroke service

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Equality and Health Inequalities Statement:

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and
- Given regard to the need to reduce inequalities between patients in access to, and outcomes from healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.

Contents

1: Population needs

Over 100,000 people have a stroke in the UK every year. Many of those who survive a stroke, with appropriate and timely rehabilitation and support, can make a full and complete recovery. However, a third will be left with some form of long-term disability, affecting mobility, cognition, vision, psychological wellbeing or communication.

Recovery can continue for many years after a stroke, so it is important to consider how to provide a seamless transfer of care and access to services over the long term.

Current stroke guidelines outline the need for community stroke rehabilitation services to provide specialist stroke rehabilitation following transfer home from hospital, including access for those going into residential or nursing homes[1,2,3]. There is strong evidence for the effectiveness of early supported discharge (ESD) for those who have mild-to-moderate disability, with trials and observational studies demonstrating that ESD can reduce long-term dependency and admission to institutional care and reduce the length of hospital stay[4,5,6].

ESD is only suitable for a proportion of the stroke population (up to 40% of patients) so the others (usually those with more complex disabilities), and also those going into residential or nursing homes need access to community stroke rehabilitation within 72 hours of discharge[5,7]. The Integrated Community Stroke Service (ICSS) model ensures that all discharged stroke patients are seen in a timely way by an integrated multidisciplinary team (MDT), regardless of their disability[8]. It builds on the principles and practice of ESD as well as the available evidence and guidelines.

2: Key features of the ICSS model

Integration

The ICSS model is part of the National Stroke Service model. The ICSS co-ordinates transfer of care of stroke survivors from hospital and, through a specialist, MDT structure, provides early, effective and community specialist stroke rehabilitation and disability management to all stroke patients leaving hospital who need it. The ICSS brings existing service configurations together, including ESD and community stroke rehabilitation, into one integrated seamless service.

Responsive and intensive rehabilitation

The ICSS should offer adults who have had a stroke responsive and intensive rehabilitation. In clinical trials ESD has been most effective for mild-to-moderate stroke survivors and decisions to offer ESD should be informed by eligibility criteria together with clinical judgement[5].

The ICSS should offer community stroke rehabilitation to stroke patients requiring a lower level of intensity, condition, disability or case management. This should be available following transfer of care from hospital or immediately following ESD, or at a later point if needs are identified within the community. Community stroke rehabilitation is distinct from, but complementary to, that offered as ESD[7] by the ICSS (see Section 3).

Needs based

ICSS should be provided for up to six months with the option for re-referral after discharge if rehabilitation needs and goals are defined, and with access to support services on discharge (see Section 4).

Pathways of care

The ICSS should offer pathways of care tailored to patient need (described in detail in Section 4).

Seven days a week service

Monday to Sunday (exact hours of service should be locally agreed). Discharges at weekends should be planned by the inpatient team in collaboration with the ICSS to ensure that the ICSS can visit and assess the patient within 24 hours if required (ie for ESD patients).

Team composition

The ICSS should be sufficiently staffed to be able to start treatment as described in the pathways identified in Section 4.

Its minimum multidisciplinary core team structure, as recommended by evidence, is:[4,5,7]

- occupational therapy (1 WTE per 100 referrals/year)
- physiotherapy (1 WTE per 100 referrals/year)
- speech and language therapy (0.4 WTE per 100 referrals/year)
- nurse (0–1.2 WTE per 100 referrals/year range; recommended locally at least 1 full time nurse per team)
- social worker (0–0.5 WTE per 100 referrals/year; recommended locally at least 0.5 per team)
- rehabilitation assistants/assistant practitioner (recommended 1 WTE per 100 referrals/year)
- physician (0.1 WTE per 100 referrals/year)
- clinical psychologist with expertise in stroke rehabilitation (about 0.2–0.4 WTE per 100 referrals/year). This reflects the relative time that a team member should be co-located within the MDT and could include additional skill mix, e.g. assistant psychologist.

Appropriate administration and management (including data management) support are essential to the effectiveness of the ICSS core team and these should be commissioned as part of the service.

The ICSS should have timely access (avoiding waiting times) to appropriate extra support from the following specific disciplines and/or services depending on individual patient need:

- psychological and neuropsychological services (eg Improving Access to Psychological Therapies (IAPT), community mental health services, psychology or neuropsychology departments using a stepped care approach)
- return to work and vocational rehabilitation services
- dietetics
- orthoptics
- orthotics
- spasticity clinic/splinting
- specialist seating/wheelchair support
- consultant review (eg six week review)
- six month review provider (if not provided by ICSS)
- life after stroke services including voluntary/charity support services, carer support services, stroke education, information provision, signposting, peer support.

Specialist service

Stroke specialist care is defined as that provided by healthcare professionals with the necessary knowledge, skills and experience in managing stroke, evidenced by a suitable qualification and training[3]. A specialist team or service is defined as a group of specialists who work together regularly to manage people with stroke, and who between them have the knowledge and skills to assess and manage most problems. At a minimum, any specialist unit, team or service must be able to deliver all the relevant recommendations in this document. This does not require the team exclusively to manage people with stroke, but the team should predominantly treat stroke survivors and have specific knowledge and practical experience of stroke[3].

While in some instances it is appropriate for stroke and neurological rehabilitation to be delivered by the same integrated team, all features of the ICSS model must be met and standards of care replicated for patients with neurological conditions where applicable.

Education and training

Specific education and training should be developed and provided in accordance with the Stroke-Specific Education Framework. Staff should be aware of and understand the implications for patients of relevant legislation including the Mental Capacity Act (2005) and the Care Act (2014).

The carer's needs should be assessed and appropriate training in care provided such as moving and handling. Stroke survivors, their families and carers should be given information about their stroke, care and management plan throughout the stroke care pathway (e.g. Stroke Association's 'personal stroke record') including points of contact for further information if needed.

3: Specialist stroke rehabilitation

Intensive rehabilitation

National clinical guidelines recommend that people with stroke should be offered and/or participate in at least 45 minutes of each appropriate therapy every day, at a frequency that enables them to meet their rehabilitation goals, and for as long as they are willing and capable of participating and showing measurable benefit from treatment[3].

The therapy the ICSS offers should be based on clinical need tailored to goals and outcomes and be agreed and communicated with stroke survivors and their carer or family members.

Patients with stroke who have mild-to-moderate disability and who have been identified as eligible for ESD should be offered assessment and treatment within 24 hours. Stroke rehabilitation should be offered at the same rehabilitation intensity as stroke unit care (typically daily sessions[9]) [3,9] .

Patients deemed not eligible for ESD should be assessed within 72 hours of discharge from hospital and provided with treatment no later than seven days after their assessment, or earlier if based on clinical judgement and patient choice. The intensity of the community stroke rehabilitation intervention is typically lower than that offered to ESD patients (eg about three sessions per week[9]), but should be established between the stroke specialist and stroke survivor and based on clinical need tailored to goals and outcomes[7].

Patients who have ongoing rehabilitation needs and goals should be offered seamless continuity of therapy – from ESD intervention to lower intensity community stroke rehabilitation, tailored to goals and outcomes.

Needs-based stroke rehabilitation

Evidence-based stroke rehabilitation, support and any appropriate management plans should be provided to address patient needs (Box 1 provides an overview as recommended in the National Clinical Guideline for Stroke). Rehabilitation should be provided either directly by the ICSS or by seamless access to services or onward referral where required. Therapy should be provided up to six months by the ICSS with the option for re-referral after discharge if rehabilitation needs and goals are defined, and with access to support services on discharge.

BOX 1: Patient needs

- **Activities of daily living:** dressing, washing, meal preparation, extended activities of daily living, driving, work and leisure, daily living aids and equipment
- **Arm function and mobility:** upper limb function, dexterity, weakness and ataxia, balance, falls, walking, positioning, gait
- **Cognition:** mental capacity, cognitive impairment, apraxia, attention and concentration, executive function, memory, perception, spatial awareness
- **Communication:** aphasia, dysarthria, apraxia of speech
- **Continence: bladder and bowel**
- **Fatigue**
- **Hydration and nutrition**
- **Mood and wellbeing:** anxiety, depression and psychological distress, emotionalism
- **Pain:** neuropathic pain, musculoskeletal pain, shoulder pain and subluxation
- **Sensation**
- **Sex and relationships**
- **Skin integrity**
- **Spasticity and contractures**
- **Swallowing:** nasogastric tube feeding, gastrostomy, mouth care
- **Vision**

Carer support, community integration and participation

The ICSS should work with the voluntary sector to develop appropriate life after stroke and support services – extending the ICSS pathways to support the long-term needs of patients and their carers/families. This should ensure provision of effective support and information as part of the rehabilitation process and encourage self-management where appropriate. Patients should be made aware of and offered options to promote their wellbeing, including stroke education and secondary prevention, community leisure activities and exercise classes, peer-led support groups and social prescribing.

Rehabilitation goals and self-management

Self-management programmes should be embedded throughout the ICSS.

Personalised plans for all patients should include personalised rehabilitation goals to allow patients to take ownership of their rehabilitation. These goals should be reviewed regularly with the patient and, where appropriate, their carers throughout the treatment period to promote and support the wellbeing principle.

The ICSS or another commissioned service provider should provide a six-month review of needs and goals using an evidence-based tool.

Remote working and telerehabilitation

The pandemic has demonstrated NHS stroke services' ability to adapt to using digital solutions and to explore the use of telerehabilitation. Use of virtual multidisciplinary meetings and frequent virtual communication with other services has facilitated decision-making processes for delivery of rehabilitation and seamless transfer of care. Other changes in community stroke services include blended models of remotely delivered rehabilitation or telerehabilitation and face-to-face rehabilitation, for individuals and groups of patients.

These approaches require further evaluation and continued monitoring of patient outcomes through the Sentinel Stroke National Audit Programme (SSNAP) and local audits. Engagement with patients and the public is important to understand how these changes have affected the patient experience.

4: Details of ICSS pathways

Access to the ICSS via hospital or community

People with disability after stroke should receive rehabilitation in a dedicated stroke inpatient unit and, following discharge from hospital, from the ICSS within the community.

ICSS service staff will work with staff in the stroke inpatient unit, the patient and their family and other support services, including the voluntary sector, to facilitate timely transfer of care. This should only happen when the patient is deemed medically stable and their rehabilitation and care needs can be safely and adequately met in an alternative setting (ideally their home). The ICSS should identify the appropriate pathway for the patient within the ICSS model and provide this without delay.

Note, however, that some stroke survivors, including those with severe disability and/or those with complex stroke-related needs, may require extended inpatient stroke rehabilitation (eg in a stroke recovery unit) and should be transferred into the community as soon as their ongoing needs can be safely met in the community setting supported by the ICSS[7].

Any person living in the community who already has a diagnosis of stroke and is identified as having a stroke-related problem within scope of the ICSS skill set should be triaged by the ICSS and contacted within 48 hours of referral to determine their needs and identify a rehabilitation/management pathway.

The ICSS should work closely with referring organisations to establish agreed and co-ordinated referral pathways. Information and data should be appropriately shared between service organisations and with the stroke survivors and their family.

Pathway 1: Home with ICSS input (most patients)

The patient is discharged home with ICSS input seven days a week. Where appropriate, a member of the ICSS team should telephone the patient within 24 hours of discharge to offer support.

Patients on this pathway should be able to manage activities of daily living independently or with the help of a carer.

Level of intervention should be based on clinical need tailored to goals and outcomes, with the ICSS offering ESD patients daily therapy visits as per need and patient wishes and other patients receiving an intensity of therapy appropriate to their needs and wishes (eg about three sessions per week)[9].

Pathway 2: Home with ICSS input combined with daily social care support

The patient is discharged home with social care support up to four times a day for six weeks (eg reablement service) combined with ICSS input, to enable safe management and rehabilitation at home. Response times for assessment and treatment for these patients should be as described in Section 3. Patients must be able to toilet independently or with the help of carers in between visits and have no overnight issues that cannot be managed conservatively or with family/carer support.

Flexible working with specialist ICSS input combined with social care provision enables earlier discharge of the more complex patients while maintaining specialist stroke rehabilitation. These patients are usually more complex and have a lower level of functional ability. To be able to remain at home while they receive rehabilitation they require assistance seven days a week with activities of daily living.

A joint rehabilitation management plan with social care should be put in place following the patient's initial assessment at home within 24 hours of discharge.

The ICSS should be responsible for supporting the staff in social care services to carry out the interventions in rehabilitation treatment plans. The ICSS should attend the MDT meetings or social care planning meetings to co-ordinate, review and plan care.

The ICSS should have local protocols and procedures for the pathway into social care and subsequent stroke patient management , and these should be jointly agreed with the health and social care staff involved in the pathway.

Pathway 3: Discharged to a residential/nursing home

Stroke rehabilitation services should assess and treat people with stroke living in a care home in exactly the same way they do patients living in their own home[3,7]. The ICSS should visit patients discharged to a nursing or residential home and carry out an assessment within 72 hours of hospital discharge based on clinical reasoning and the patient's need and choice.

The assessment should include a review of swallowing, spasticity, seating, pain, upper limb management, mobility/transfer methods, continence, diet and support pressure area management. Care home staff should have training on the physical, psychological and social effects of stroke and optimum management of common impairments[3].

Treatment should begin for those patients who require therapy no later than seven days from assessment or earlier based on clinical reasoning and patient choice[9].

Other care facilities

A small number of patients may be transferred to other care facilities (such as intermediate or transitional care) with support from the ICSS.

These patients will be identified and managed on a case-by-case basis by the acute stroke unit team and ICSS, and in accordance with clinical reasoning and patient choice. If the patient resides in another care facility then the ICSS should:

- in reach to the unit to provide assessment and treatment for the patient and have full responsibility for management plans
- attend weekly MDT meetings to discuss and manage patients with the other care unit staff, GP, family and the patient
- carry out home visits. These patients usually step down to pathway 1 or 2 following discharge home to support their re-integration in the home environment until goals have been achieved. They are able to go home with reablement or family support and continued ICSS rehabilitation at home.

Commissioners and providers should collaborate to ensure that no imposed geographical boundary, referral process or criteria prelude patients from accessing ICSS services.

Guidance with regard to the Discharge to Assess model and stroke rehabilitation is available.

Discharge from the ICSS

Maximum service provision is six months post discharge from hospital or six months post referral for community referrals or new patients, with extensions for those who are still achieving goals but require further rehabilitation based on clinical reasoning. There is an option for patients to be re-referred back in at any time after discharge if they have defined rehabilitation needs and goals.

Discharge is agreed when a patient's goals are met or they are deemed no longer to be making meaningful progress, or the patient declines the service. Patients can re-refer themselves back to the ICSS at any point post discharge for assessment of need and the ICSS will help determine the most appropriate pathway or referral to other services and support.

On discharge the ICSS should make patients and carers aware of and enable them to access stroke information and appropriate support groups or services and exercise pathways, to ensure longer-term support and re-integration is successful and needs led. The ICSS should send a discharge summary to the GP, patient and onward services within a week of discharge.

End-of-life care

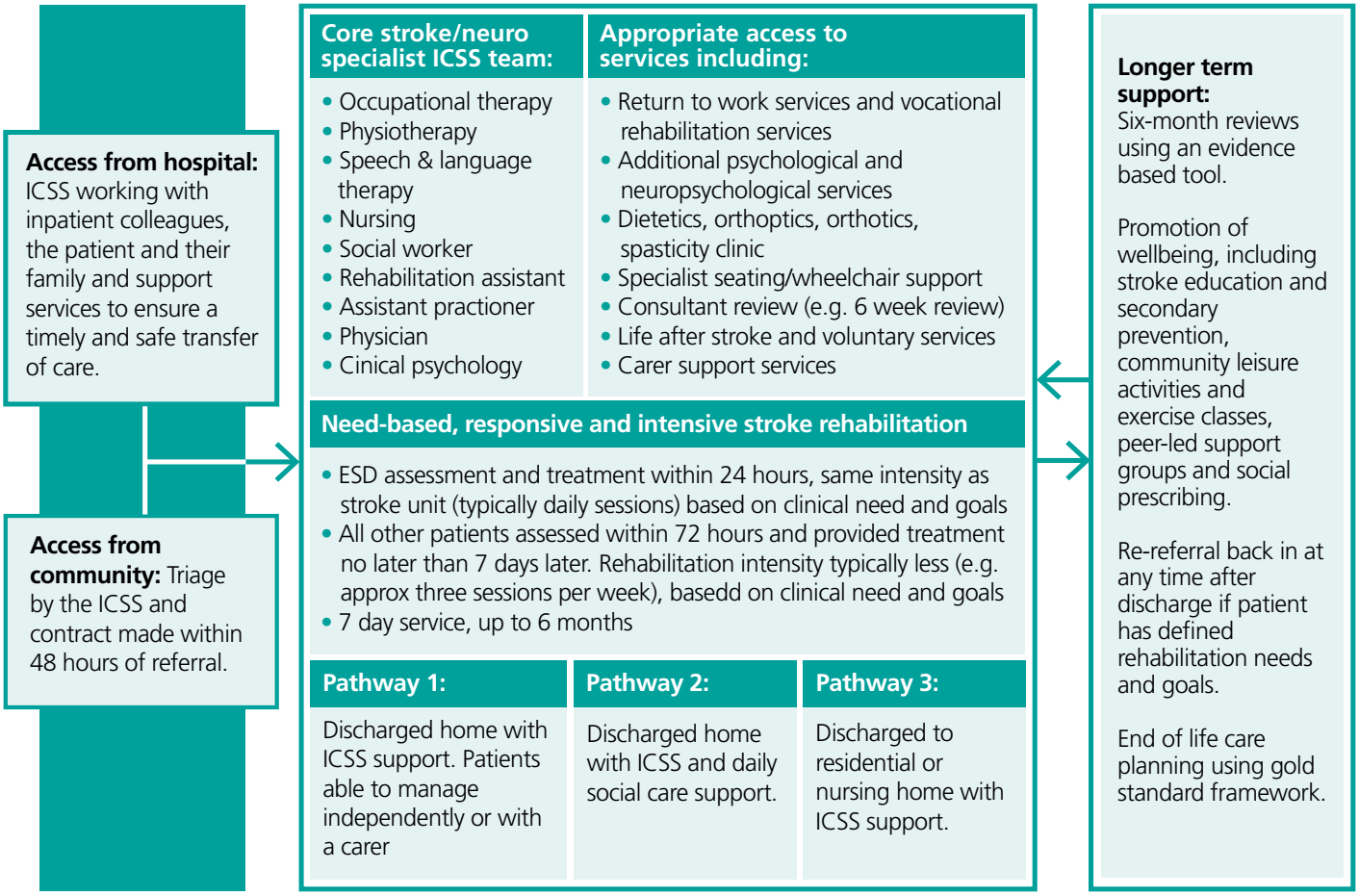
If the inpatient MDT recognises the patient is dying, then effective and where necessary rapid processes for discharge should be in place, between the inpatient team and the ICSS, to meet the patient's wishes, including their preferred place of care and death (eg rapid discharge/fast track pathway).

The ICSS will liaise with the inpatient MDT to ensure it supports the discharge if necessary. If a patient is identified as being at the end of their life at any stage of the pathway, advance care planning should be initiated and/or reviewed and a gold standard framework for an end-of-life care model adopted.

5: Data collection

The standard sets of data for routine collection/recording for audit purposes should be determined, informed by National Institute for Health and Care Excellence guidelines and quality standards[1,2,10] and core datasets included in the Sentinel Stroke National Audit Programme.

6: Integrated community stroke service model



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Contributors

This document was written by an expert task and finish group and informed by the evidence base, national clinical guidelines and existing service specifications. It is underpinned by wide stakeholder engagement involving clinicians, academics, stroke survivors and their families, and the voluntary sector.

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Service specifications that informed this model:

- Greater Manchester Integrated Community Stroke Service specification
- Lancashire and Cumbria Integrated Community Stroke Service specification
- East Midlands ESD and Community Stroke Rehabilitation specifications
- Pan-London Community Stroke Services specifications
- South East England Clinical Service specifications

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