



# NRH

**National Rehabilitation  
University Hospital**

## **Stroke Specialty Programme**

### **Scope of Service**

## **2026**

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# Introduction

The Stroke Programme of rehabilitation at the National Rehabilitation Hospital (NRH) provides specialised, interdisciplinary, coordinated and outcomes focussed rehabilitation for people with stroke. The programme demonstrates the commitment, capabilities, and resources to maintain itself as a specialised programme of care for people with stroke.

A Stroke is damage to the brain due to a lack of blood supply or bleeding into the brain. Symptoms last over 24 hours and includes ischaemic stroke (blocked blood vessel) and haemorrhagic stroke (bleeding inside the brain). One of the most important things to know about surviving a stroke is that every stroke is unique, meaning that symptoms can vary widely according to the extent and location of damage to brain tissue. Ensuing impairments can result in a wide range and varying levels of medical, physical, cognitive, communicative, psychological, social, behavioural, vocational, educational, cultural, family, and spiritual and leisure needs in people with stroke. Impairments may also impact the functional abilities of people with stroke to live independently, return to work or education, participate in leisure and social activities, fulfil family roles and maintain personal, sexual and family relationships.

Stroke is a leading cause of death and disability worldwide. In Ireland, approximately 10,000 people will have a stroke event each year. Of these, it is estimated that approximately 2,000 will die and a further 7,000 will require acute hospital admission. There is currently upwards of 30,000 people living in Ireland with disabilities as a result of stroke. Patients who survive a stroke are often left with some level of disability. Rehabilitation to reduce disability is therefore very important for the care of stroke patients.

Under the direction of the Stroke Programme Manager and the Stroke Medical Director, the programme, in conjunction with the persons served and their families/carers, provides individualised, goal-directed rehabilitation designed to lessen the impact of impairment and to assist people with stroke to achieve their desired levels of functional independence, social participation and community reintegration.

The stroke services are provided by an interdisciplinary team through a case-coordinated approach that also addresses:

- Ongoing access to information, referral and transition to services available within the NRH Stroke Continuum of care.

- Support for information sharing, movement and access with other external stroke community resources and stakeholders.
- Provision of education and support to persons served, their families/support systems and the community.
- Facilitation of opportunity for interaction for people with stroke within the NRH Stroke Continuum of care

## **NRH Stroke Continuum of Care**

The NRH has developed a full continuum of care for people with Stroke. This continuum includes:

- Stroke Comprehensive Integrated Inpatient Rehabilitation Programme (SIP)
- Outpatient Rehabilitation Programme
- Home and Community Based Rehabilitation Programme.
- Vocational Programme

This comprehensive, interdisciplinary continuum of care ensures that all individuals can receive the most appropriate programme of care based on their injury and their individual rehabilitation needs. Treatment can begin anywhere on this continuum, and persons served can progress through this continuum and to other appropriate community and follow-up services.

In some instances, the person served can receive services from multiple NRH programmes and services throughout their continuum of care. For example, a person who has experienced a stroke may also have amputation. This “dual diagnosis” requires a specialised and individualised treatment plan that addresses the unique needs of the person and utilises the expertise and close working of multiple NRH programme staff and services.

Families, carers and other members of the person’s support system are all partners in the rehabilitation process. As such, support individuals are encouraged to participate in all aspects of the programme. Information, education, counselling, emotional and psychological support has been demonstrated to reduce the emotional sequelae experienced by the family/carer. This support may help the process of adaptation and coming to terms with life changes, and so result in better long-term outcomes for both the patient and the family/support system. Rehabilitation is a continuous and lifelong process.

## **Rehabilitation Setting**

The National Rehabilitation Hospital (NRH) is a publicly financed, voluntary, free-standing, 120 bed inpatient and outpatient rehabilitation hospital located in Dun Laoghaire, Co. Dublin.

## **Inpatient Rehabilitation**

### **Stroke Inpatient Programme (SIP)**

The SIP is a 20-bed inpatient stroke rehabilitation programme. The SIP is located on Willow Unit on the ground floor of the hospital. The unit has a rehabilitation medicine consultant and the programme is delivered by an interdisciplinary team, comprising of non-consultant hospital doctors, rehabilitation nursing, physiotherapy, occupational therapy, speech and language therapy, psychology and medical social workers acting as case coordinators.

The unit serves patients with mixed rehabilitation complexity levels from low to very high. Stroke patients can also access the unit that is dedicated to persons with stroke who also present with a prolonged disorder of consciousness (PDoC).

Ventilatory dependent patients can only be only managed in the SCSC programme. Should a stroke patient be ventilatory dependent they can be admitted to the SCSC programme with intensive preplanning and the ongoing collaboration of nursing and therapy teams in both programmes. The patient is admitted under the care of the relevant programme medical consultant.

### **Hours of Service**

The inpatient programme provides 24-hour, seven-day-a-week medical and nursing care with therapy and ancillary care provided 6-days-a-week (Mon-Sat).

### **Exclusion Criteria**

Persons with stroke are excluded from the SIP where other needs (such as medical, psychiatric, behavioural, drug and substance misuse) predominate over the potential to benefit from specialised inpatient rehabilitation care and the

cognitive, physical and psycho-social needs of the patient. In these cases, recommendations may be made to the referring agent regarding other more appropriate services at this time.

## **Admission Criteria**

To be admitted into the Stroke Inpatient Programme at the NRH, the individual must:

1. Have one of the following:
  - a. Vascular pathology including:
    - i. Ischaemic stroke (thrombotic and embolic, spontaneous in nature)
    - ii. Haemorrhagic stroke (intraparenchymal, arteriovenous malformation and spontaneous subarachnoid haemorrhagic)
  - b. Have medical, cognitive, physical, communicative and/or behavioural needs related to the stroke or disease process.
2. Be aged 18 or over at admission. Individuals aged 16-18 years may be admitted in consultation with the NRH Paediatric and Family Centred Programme and where a full pre-admission risk assessment and care plan in line with the NRH Child Protection Policy has been completed.
3. Have identified medical, cognitive, physical, communication and/or behavioural needs which cannot be met in an outpatient, community or home rehabilitation setting.
4. Have the potential to benefit from specialised inpatient rehabilitation through the utilisation of an interdisciplinary team approach within a specified timeframe.
5. Be under the care of a National Rehabilitation Hospital Medical Rehabilitation Consultant.
6. In some cases, where preadmission assessment of rehabilitation needs has identified that long term placement is likely to be required due to complex or specific needs, then this funding for this long-term placement and the location is confirmed prior to the admission to NRH.
7. Have a visa that entitles them to non-emergency healthcare in the public system.

Access to NRH Services in the Stroke Inpatient Programme may include:-

- Consultation by a Consultant in Rehabilitation Medicine
- IDT assessment and recommendation

- Advice from a specialist neuro-rehabilitation team on equipment or self-management strategies
- Recommendation to health and social care professional colleagues on the treatment programme or other significant agencies
- Onward referrals to other agencies

Admission to the programme is based on the preadmission rehabilitation assessment of need and on meeting the programme's admission criteria. However, the timing of admission to the SIP may be influenced by the preadmission assessment of the specificity, intensity of the individual's needs and level of dependency, in relation to programme's capacity to best meet these specific needs at that time.

The Stroke Programme operates a waiting list management system which is monitored in the weekly triage and admissions meetings by the waiting list management group to ensure that all administrative, managerial and professional health care staff follow an agreed minimum standard for the management and administration of the NRH Stroke Programme Inpatient waiting list in adherence to national policy.

## **Discharge Criteria**

To be discharged from the Stroke Inpatient Programme at the NRH, one or more of the following must be true:

1. The person is deemed to have achieved their identified goals and therefore received maximum benefit from the inpatient programme.
2. The person has improved to the projected functional level that will allow discharge to another specified environment or service.
3. The person experiences major intervening surgical, medical and/or psychological problems that precludes further benefit from continuing an intensive inpatient rehabilitation programme.
4. The person's ongoing rehabilitation needs (as assessed by the Inpatient team) can best be met in an alternative environment or service. In this case, discharge also involves relevant services being informed and set-up and appropriate care packages arranged.

5. The person is no longer willing to be an active participant in the inpatient programme or chooses to self-discharge.
6. The person is non-compliant or unable to comply with programme services.

The person has the right to make decisions regarding his or her rehabilitative care, and the right to refuse any portion of the programme, up to and including discharge against informed medical advice. Should the person elect to exercise his or her rights, the rehabilitation team will guide the person and the family through the process.

Although the inpatient programme has admission criteria, the NRH (as a publicly funded organisation) does not operate a denial of services. In response to any referral there is an assessment of eligibility for the programme. If no service can be offered advice from a medical rehabilitation perspective is given to the referrer.

## **Services Provided for the Person Served**

Following appropriate referral to the SIP, the person will receive a comprehensive, interdisciplinary preadmission assessment in order to identify their needs. This assessment may include medical, physical, cognitive, communicative, psychological, social, behavioural, vocational, educational, cultural, family, and spiritual and leisure needs. This is also an opportunity for persons referred to receive information about the SIP including characteristics of persons served, types of services offered, outcomes and satisfaction from previous patients served, and any other relevant information. Following this assessment and if the person meets the SIP admission criteria, they may be offered admission to the SIP based on level of dependency and chronological referral.

Following admission to the inpatient programme the interdisciplinary team members, in collaboration with the patient and their family/support network, will develop a comprehensive, goal directed treatment plan that addresses the identified needs of the patient and their family/support network. Persons served and their family/support network are offered appropriate information and opportunity for feedback at every stage of the rehabilitation process and are actively involved in decisions regarding their care. Persons served and their family/support network are also offered education regarding primary prevention



of further stroke and secondary prevention related to better management of potential risks and complications.

Persons admitted to the SIP receive a minimum of two hours of direct rehabilitation nursing and therapy services per day Monday through Friday. Direct service intensity differs on weekends depending on resources available and individual needs. Home and/or community leave is also facilitated for persons served in order to achieve for gradual reintegration for the person into these environments.

**Services offered in the SIP to meet identified needs could include:**

- Activities of daily living (ADL) assessment and training
- Adaptive equipment assessment and training
- Aquatic Physiotherapy
- Art Therapy
- Assistive technology assessment and training
- Audiology screening
- Behavioural assessment and management
- Bowel and bladder training
- Clinical neuropsychological assessment
- Cognitive rehabilitation training
- Coping with and adjustment to disability support
- Dental Services
- Discharge Planning
- Driving and community transport assessment
- Dysphagia assessment and management
- Family/ support system education, training, and counselling
- Independent living skills assessment & training
- Medical assessment and management
- Mobility assessment and training
- Music Therapy
- Nutritional counselling and management
- Orthopaedic assessment
- Orthoptics
- Orthotics and splinting assessment and training
- Pastoral and spiritual guidance
- Patient advocacy and support
- Patient education, training, and counselling

- Pharmaceutical care, management, and training
- Podiatry/Chiropody
- Prosthetic assessment, training, and management
- Psychosocial assessment and psychotherapeutic intervention
- Radiology
- Rehabilitation nursing
- Relaxation and Stress Management
- Respiratory therapy
- Safety awareness and training
- Sexual health and wellbeing
- Smoking cessation training and support
- Spasticity management
- Speech/Language and communication assessment and training
- Sports and Exercise Physiotherapy
- Urology service
- Vocational assessment and counselling
- Wheelchair and seating assessment

**Ancillary services could include:**

- Advanced assistive technology assessment and prescription
- Medical speciality referral for consultation including Psychiatry, Radiology - Brain Imaging, Orthoptics and Neuro-ophthalmology, Neuropsychiatry and Orthopaedics
- On-road driving assessment and training
- Optician
- Osteoporosis assessment
- Podiatry
- Flexible Endoscopic Evaluation of Swallowing (FEES)

If additional services are required and not available on-site at NRH, the inpatient programme can facilitate referral to a wide range of ancillary and support services.

People with Stroke in the inpatient programme frequently have complex disabilities and subsequently complex rehabilitation needs which require specialist intervention by professionals with knowledge and experience in the management of ABI. The composition of the interdisciplinary team for each person served is determined by the assessment of the person's individual medical and rehabilitation needs. These team members could include:

- Art Therapist
- Brain injury clinical nurse specialist
- Brain injury outreach specialist
- Brain Injury rehabilitation coordinator
- Chaplain
- Clinical neuropsychologist
- Clinical psychologist
- Dietitian
- Discharge liaison occupational therapist
- Health care assistants
- Aquatic Physiotherapist
- Medical Social worker
- Music Therapist
- Occupational therapist
- Pharmacist
- Physiotherapist
- Psychiatrist
- Radiologist
- Recreation Therapist
- Rehabilitation medicine specialist
- Rehabilitation nurse
- Speech and language therapist
- Sports and exercise physiotherapist

The carrying over of new skills gained in treatment into daily activities and into discharge environments is critical to the success of any rehabilitation programme.

### **Pharmacy Service**

On-site services to inpatients:

Pharmacy services are available onsite, during normal working hours Monday-Friday. The pharmacy purchases and dispenses medications for all inpatients, in a timely manner throughout their stay in the NRH. Medications are also dispensed for therapeutic leave and discharge. Medications are reviewed and optimised, in consultation with the medical staff and person, throughout the persons stay. Medication education is provided in group and individual sessions according to persons requirement.

**Capacity:**

There is capacity to respond to all pharmacy requests for urgent and scheduled according to clinical need, as requested by the referring medical doctor including weekends.

**Timeliness of response to Order:**

Urgent requests for medication are prioritised to be provided on a same day basis, Monday to Friday, 9-5 and via the Nursing Manager in charge at weekends.

**Diagnostic Imaging**

On-site services to inpatients:

- X-ray service, portable and in the Radiology Department, during normal working hours and after hours on an on-call basis, based on clinical need 24/7.
- Ultrasound (US) service, both in the Department and portable, 9-5, Monday to Friday.
- DXA service in the Radiology Department, 9-5, Monday to Friday.

Off-site Diagnostic imaging:

- CT imaging service at St Columille's Hospital, Loughlinstown, Monday to Friday 9-5, on an urgent and elective basis, depending on clinical need, by NRH ambulance transfer.
- MRI service by arrangement with private providers on a scheduled basis.

**Capacity:**

There is capacity to respond to all requests for urgent and scheduled Diagnostic Imaging according to clinical need, as requested by the referring medical doctor.

**Timeliness of response to Order:**

Urgent requests for imaging are prioritised to be carried out on a same day basis, Monday to Friday, 9-5.

In addition, urgent X-ray is also provided out of hours by the on-call Radiographer as requested by the medical team.

There are no waiting lists for elective diagnostic imaging, which is scheduled to suit individual patient's needs and availability.

Timeliness of results to the clinician who is making a decision based on those results:

Urgent results are provided electronically within 24 hours by the reporting Consultant Radiologist by remote access via the National Integrated Medical Imaging System (NIMIS).

Reporting of elective/scheduled imaging is carried out when the Radiologist is on site twice a week.

The Radiology Department participates in the National Radiology Quality Improvement Programme which includes timely communication of Critical, Urgent and Unexpected and Clinically Significant radiological findings via an electronic Alert Management System in line with specified national guidelines.

### **Services provided for Families, Carers and Support Systems of Person Served:**

Many services are available within the Stroke inpatient programme to meet the needs of the person served and their family/carers including:

- Education/training about management of ABI related issues (formal education, printed resource material, instruction and practical skills training in preparation for discharge).
- Supported living on site in our short stay transitional independent living facility.
- Pastoral and spiritual services
- Peer support through interaction with other families and various community support groups (e.g. the Irish Heart Foundation Stroke Services and Headway Ireland).
- Information about community support, advocacy, accommodation and assistive technology resources.

### **Discharge Outcomes and Environments**

The Stroke Inpatient Programme aims to discharge all persons served after they have achieved their desired rehabilitation goals and are deemed to have received maximum benefit from the programme. The programme strives - at all times - to discharge patients to their most appropriate and desired discharge environment, taking into consideration the person's and family's wishes, their clinical and functional status, legal restrictions and availability of community and home supports. The majority of persons served are prepared for discharge to home.

Alternative discharge destinations such as long-term care facilities, assisted living residences, group homes or other post-acute rehabilitation programmes may be recommended based on level of functional independence and services available. Discharge to an acute hospital setting may be necessary in the event of medical illness or to await access to local community support services.

## **Palliative Care**

The NRH strives to deliver goal orientated rehabilitation for all patients who require rehabilitation services. However, it is recognised that in some instances active rehabilitation is not the most appropriate or suitable approach for the patient and or their family. In such cases, the NRH will liaise with all relevant parties to ensure the best possible outcome for all. The NRH, the programme can offer referral to Palliative Care services where this is medically indicated and in full agreement with the patient and or family. The NRH will support the transition to such services and aim to secure these services in the most suitable location for the patient and or their family.

# Outpatient Rehabilitation

Stroke Outpatient rehabilitation provides complex, specialist rehabilitation. The main Outpatient Department is located on the grounds of the NRH in Unit 6. Patients attending the Stroke Outpatient Rehabilitation programme access specialist neurorehabilitation services to target to specific, person-centred goals.

## Hours of Service

The outpatient programme provides services six days-a-week (Monday to Sat), 9am to 5pm. Some services are available outside these times by pre-arranged appointment.

## Exclusion Criteria

Persons with Stroke are excluded from the outpatient programme where other needs (e.g. medical, psychiatric, behavioural, drug and substance misuse), predominate over the potential to benefit from specialised outpatient rehabilitation care and the cognitive, physical and psycho-social needs of the patient. In these cases, recommendations may be made to the referring agent regarding other more appropriate services.

Patients will be excluded from NRH Outpatient services if NRH cannot provide the service requested. NRH Outpatient team is currently unable to provide:

- Wheelchair/ OT Equipment Prescription and Provision
- Home and Environmental Assessments
- Personal Care Assessment and Training
- Discharge Liaison OT services
- Access to Lokomat Training
- Dietetic input
- Flourosopic Endoscopic Evaluation of Swallowing (FEES)

## Admission Criteria

To be admitted into the Stroke Outpatient programme at the NRH, the individual must:

1. Have the following:
  - a. Vascular Accident including:
    - iii. Ischaemic stroke

- iv. Intracerebral haemorrhage
    - v. Subarachnoid haemorrhage
  - b. Have medical, cognitive, physical, communicative, psychological and or behavioural needs related to the stroke that require complex, specialist outpatient rehabilitation.
- 2. Be aged 18 years or over with the exception of the Paediatric Transition Clinic Reviews which are run by the Paediatric Team.
- 3. Have the potential to benefit from complex, specialised outpatient rehabilitation. .
- 4. Be under the care of a National Rehabilitation Hospital Consultant in Rehabilitation Medicine.
- 5. Have access to their own transportation to and from the outpatient programme.
- 6. Have a visa that entitles them to non-emergency healthcare in the public system

Activities provided to such patients may include:

- Medical Consultant clinics e.g. Doctor only clinics.
- Interdisciplinary Clinics e.g. assessments with a Medical consultant and therapy team, Neurobehavioral Clinics.
- Nursing assessments and reviews including the Sexual Health and Wellbeing service.
- Ophthalmology and orthoptic clinics.
- Speech and Language Therapy
- Occupational Therapy including Vocational Assessment.
- Physiotherapy.
- Psychology
- Medical Social Work.
- Orthotics and Splinting.

Input from the OPD Therapy team may include single or interdisciplinary assessment and intervention, consultation and advice or group therapy.



Some of our therapy groups include: Graded Repetitive Arm Supplementary Programme (Grasp) Group, Living with Aphasia group, Pilates, Wellness Programme.

- Onward referral to other agencies.
- Redirection and recommendations regarding appropriate agencies if needs cannot be met at NRH Brain Injury OPD Department.

## **Driving**

The NRH Outpatient department currently has a very limited resource for driving assessments. At present, these assessments are only available to previous NRH inpatients and to NRH outpatients who are completing a full outpatient rehabilitation programme. We are currently unable to offer driving assessments to patients who do not require other NRH Outpatient Services. Patients who require a stand-alone driving assessment can contact the Irish Wheelchair Association or Transport and Mobility Consultants Ireland to explore alternative driving assessment options.

Admission to the outpatient programme is based on the preadmission rehabilitation assessment of level of need and the meeting of the programme's admission criteria. However, priority of admission may be given to patients referred from the NRH Stroke Inpatient Programme. The NRH Outpatients department operates a waitlist management system in adherence with the National Outpatient Waitlist Protocol.

## **Discharge Criteria**

To be discharged from the outpatient programme at the NRH, one or more of the following must be true:

1. The person has achieved their identified goals for their programme.
2. The person has improved to the projected functional level that will allow discharge to another service.
3. The person experiences major intervening surgical, medical and or psychological problems that precludes further benefit from a continuing outpatient rehabilitation programme.
4. The person's ongoing rehabilitation needs can best be met in an alternative environment or service.

5. The person is no longer willing to be an active participant in the outpatient programme.
6. The person is non-compliant with outpatient programme services.
7. The person cancels or does not attend their appointments in line with the NRH DNA and CNA policy.
8. The person has the right to make decisions regarding his or her rehabilitative care, and the right to refuse any portion of the outpatient programme, up to and including discharge against informed medical advice. Should the person elect to exercise his or her rights, the rehabilitation team will guide the person and the family through the process.

### **The Services Provided for The Person Served:**

Following appropriate referral to the outpatient programme, the person will receive a preadmission assessment to identify their unique medical, physical, cognitive, communicative, psychosocial, behavioural, vocational, educational, cultural, family, spiritual and leisure/recreational needs. This is also an opportunity for the person referred and their family/carers to receive information about the programme including characteristics of persons served, types of services offered, outcomes and satisfaction of previous patients served, and any other information. Following this assessment and if the person meets the outpatient programme admission criteria, they may be offered treatment by the multidisciplinary team.

Following admission, the relevant outpatient programme team member, in collaboration with the patient and their family or support network, will develop a treatment plan that addresses the identified needs of the patient and their family/support network. Patients and their family/support network are offered appropriate information and opportunity for feedback at every stage of the rehabilitation process and are actively involved in decisions regarding their care.