Spinal Cord System of Care: Inpatient and Outpatient Programmes

Scope of Service

2026

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Introduction

The Spinal Cord System of Care (SCSC) Programme at the National Rehabilitation Hospital (NRH) provides specialised, interdisciplinary, coordinated and outcomes focussed rehabilitation to persons with spinal cord dysfunction. The NRH has developed a continuum of care for people with spinal cord dysfunction, encompassing the inpatient rehabilitation phase, outpatient phase and links to community services.

Spinal cord dysfunction may result from traumatic injury or non-traumatic injury including such disorders as spinal cord tumours, (benign or malignant), demyelination, vascular or inflammatory disorders. Patients with any neurological level & ASIA impairment scale spinal cord dysfunction can be considered for admission, including patients who are ventilator dependent. The SCSC Programme also includes the management of patients with peripheral neuropathies, such as Guillain Barre Syndrome as similar principles of rehabilitation apply to these conditions.

Persons with spinal cord dysfunction may have many challenges and may face wide-ranging long-term restrictions in their ability to live independently, drive or use public transport, return to work or education, participate in leisure and social activities, fulfil family roles and maintain personal, sexual and family relationships. The SCSC Programme at the NRH is designed to assist patients and their family and or carers to manage their impairments and to promote greater levels of functional independence, social participation and community reintegration.

The SCSC Programme interdisciplinary team, in conjunction with persons served and their families, provides individualised, goal directed treatment plans designed to minimise the impact of these deficits and address the unique medical, physical, cognitive, psychological, vocational, educational, cultural, family, spiritual and leisure or recreational needs of people with spinal cord dysfunction and their families and carers.

The SCSC Programme is provided through a case managed approach that addresses:

- Progress through the spinal cord dysfunction continuum of care
- Ongoing access to information about services available within a coordinated continuum of care
- Links with community and stakeholder services
- Family and Carer education and support

- Education of persons served, their families and or support systems and appropriate local support services
- Facilitation of opportunities for interaction with peers.
- Provision of specialist input to assist clinicians dealing with special patient groups such as children with spinal cord injury (SCI), pregnant women with SCI, cancer patients with spinal cord compression.

Rehabilitation Setting

The National Rehabilitation Hospital is a publicly financed, voluntary, free standing 120-bed inpatient, day-patient and outpatient rehabilitation hospital located in Dun Laoghaire, County Dublin, Ireland.

The Inpatient SCSC Programme is a 40-bed inpatient rehabilitation programme that provides 24-hour, 7 days a week, medical, rehabilitation and nursing care and on-call respiratory physiotherapy.

Persons admitted to the inpatient SCSC Programme receive a minimum of 15 hours of treatment per week. Treatment may be delivered on a one-to-one basis or with more than one person being treated at the same time (known as concurrent treatment). Patients may also receive group treatment and education sessions. Self-directed treatment, where appropriate, is an important part of the programme, helping to develop autonomy in managing aspects of spinal cord injury throughout the rehabilitation journey. Direct therapy intensity differs on weekends depending on resources available, and to facilitate possible gradual reintegration of person into their home and community environments through therapeutic leave.

The SCSC Programme service areas are mainly located on Level 2 in the new hospital building and in the interdisciplinary treatment area in the Cedars Building. Depending on their assessed needs, persons within the SCSC Programme can be admitted to one of the following ward units.

- **Fern Unit** is a 5-bed high-dependency, mixed gender ward that consists of 5 single ensuite rooms
- **Lily Unit** is a 15-bed mixed gender ward consisting of 15 single ensuite rooms
- **Oak Unit** is a 20-bed mixed gender ward consisting of 20 single ensuite rooms

The Outpatient Programme is largely located in Unit 6 on the grounds of the NRH. The SCSC Urology Service is located within the Cedars Building. Some services are available via telehealth using videocalls or phone calls.

The Spinal Cord System of Care Programme Continuum of Care

The NRH has developed a continuum of care for people with spinal cord dysfunction, encompassing inpatient rehabilitation, outpatient rehabilitation and links to community services. This comprehensive interdisciplinary system of care ensures that all individuals can receive the most appropriate programme of care based on their spinal cord dysfunction and their individual rehabilitation needs. For those who have sustained a traumatic spinal cord injury rehabilitation can begin post medical stabilisation including respiratory stabilisation.

Important in this continuum of care is communication and working links with all internal and external stakeholders to facilitate coordination of care and access to information and services.

Hours of Service

The SCSC Programme provides 24-hour, 7 days a week, medical, rehabilitation and nursing care and on-call respiratory physiotherapy.

The Outpatient Programme services are typically provided from 8.30am to 5pm, Monday to Friday. Some services are available outside these times. The Outpatient Programme does not provide emergency or out of hours services. All services are provided by appointment only.

Referral sources

Referrals are accepted from the following sources:

- Acute Hospitals
- GPs
- Community Agencies

The Services Provided for the Person Served

Every person who has been referred for inpatient rehabilitation receives a preadmission assessment of medical and rehabilitation needs that includes diagnosis, prognosis, morbidity, co-morbidity, premorbid level of function, mental status, ability to tolerate the intensity of the rehabilitation programme and support systems. If a person meets the admission criteria (see page 15) they are offered rehabilitation. Persons admitted and their families are offered appropriate

information and opportunity for feedback at every stage of the process and are actively involved in decisions regarding their care. An important aspect of this programme is education of both patient and family in relation to primary prevention to avert recurrence of the impairment process (where possible) and secondary prevention related to potential risks and complications due to impairment. This education will often require attendance at agreed sessions with family members and or practical hands-on interaction with the patient – backed up with the provision of printed and audiovisual education material.

Following admission the interdisciplinary team members, in collaboration with the patient and family, will develop a comprehensive treatment plan that addresses the identified needs of the person, their family and support network.

The range of services offered to meet these identified needs could include:

- Activities of daily living training
- Adaptive equipment assessment and training
- Assistive technology assessment and training
- Audiology screening
- Behavioural support
- Bowel and bladder training
- Clinical psychological assessment and intervention
- Cognitive Assessment
- Communication Support
- Community liaison
- Coping and adjustment to disability
- Dentistry
- Discharge planning
- Driving and community transport assessments and training
- Emergency preparedness
- Environmental Modifications
- Equipment Trials
- Patient, family and caregiver training and education
- Fibreoptic endoscopic examination of swallow
- Fitness and sports
- Health Promotion

- Horticulture therapy
- Independent living skills assessment
- Infection Prevention & Management
- Information regarding entitlements and services.
- Intensivist medical input including management of ventilator dependent patients
- Leisure and Recreational Services
- Management of Autonomic Dysfunction
- Medical Consultants in Rehabilitation Medicine
- Men's Health Supports
- Mobility training
- Nutritional counselling and management
- Occupational therapy
- Orthopaedic assessment
- Orthotics and splinting
- Pain Management
- Pastoral and spiritual services
- Patient Advocacy Service
- Patient and family support system counselling
- Peer led education
- Peer support service
- Pharmaceutical Care, for example, patient counselling on medications
- Physiotherapy
- Plastic Surgery
- Podiatry
- Postural management
- Prosthetics
- Psychiatry
- Psychosocial assessment and intervention
- Radiology
- Referral to appropriate care pathway supports
- Rehabilitation nursing

- Respiratory management including tracheostomies and ventilatory support
- Safety awareness and training
- Sexual Health and Wellbeing service.
- Skin care training
- Specialist Seating Assessment
- Speech and Language Therapy including dysphagia management
- Therapeutic Make Up Service
- Tone management
- Upper Limb Reconstruction
- Urology service.
- Vocational assessment
- Visual Rehabilitation Service
- Wheelchair and Seating clinic
- Women's Health Supports
- Woodwork

Some persons admitted to more than one programme in the NRH will receive appropriate services from each programme.

Depending on the assessed needs, some services cannot be provided on site within the SCSC Programme. The programme can facilitate referral for specific ancillary services.

Examples of these ancillary services could include:

- Neurology
- Optician
- Substance abuse counselling
- Videofluoroscopy
- Neurosurgery
- Oncology
- Haematology

Palliative Care

The NRH strives to deliver goal orientated rehabilitation for all patients who require our service. However, it is recognised that in some instances active rehabilitation is not the 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 will refer to palliative care services where this is medically indicated and in agreement with the patient and or their 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.

The Interdisciplinary Team

Patients with spinal cord dysfunction frequently have complex disabilities which require intervention by professionals with specialist knowledge and experience. The composition of the interdisciplinary team for each person served is determined by the assessment of the person's individual medical and rehabilitation needs.

The individuals who may be on the team are:

- The patient (person served) and family
- Rehabilitation Consultant and medical team
- Rehabilitation Nurse
- Advanced Nurse Practitioner
- Clinical Psychologist
- Dietitian
- Medical Social Worker
- Recreational Assistant
- Healthcare Assistant
- Pharmacist
- Liaison Nurse
- Occupational Therapist
- Physiotherapist
- Speech and Language Therapist

- Intensivist
- Orthotist
- Sports therapist
- Music therapist
- Art therapist
- Chaplain
- Dentist

Research Capability

The National Rehabilitation Hospital Academic Department provides support to the Spinal Cord System of Care in a variety of ways to enhance the research capabilities of the service. The Academic Department has strong links with University College Dublin, enabling staff to engage in research while working clinically and providing academic and research support.

Pharmacy Service: NRH Inpatient Pharmacy

On-site Services to Inpatients

Pharmacy services are available onsite, during normal working hours Monday to 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 person's stay. Medication education is provided in group and individual sessions according to the person's 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, 9am to 5pm and via the Nursing Manager in charge at weekends.

Pharmacy Service: NRH Outpatient Pharmacy

On-site Services to Outpatients
Pharmacy services are available onsite, during normal working hours Monday to Friday. The pharmacy purchases and dispenses medications for specific outpatient needs, for example, Spasticity clinics, glucose monitoring.

Timeliness of response to Order:
Urgent requests for medication are prioritised to be provided on a same day basis, Monday to Friday, 9am to 5pm.

Diagnostic Imaging: NRH Inpatient 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 hours per day, 7 days per week.
- Ultrasound (US) service, both in the Department and portable, 9am to 5pm, Monday to Friday.
- DXA service in the Radiology Department, 9am to 5pm, Monday to Friday.

Off-site Diagnostic Imaging

- CT imaging service at St Columcille's Hospital, Loughlinstown, Monday to Friday 9am to 5pm, 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, 9am to 5pm.

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 and 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.

Diagnostic Imaging: NRH Outpatient Diagnostic Imaging

On-site Services to Outpatients

- X-ray service in the Radiology Department is available to outpatients by appointment, during normal working hours.
- Ultrasound (US) service is available to outpatients by appointment, during normal working hours.
- DXA service is available to outpatients by appointment, during normal working hours.

Off-site Diagnostic Imaging

- Outpatients may be referred for off-site diagnostic imaging such as CT or MRI exams.

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.

The Services Provided for the Families, Carers and Support Systems of the Persons Served

Families and carers are partners in the rehabilitation process and are encouraged to participate in all phases of the programme. Information, counselling, emotional and psychological support can reduce the emotional sequelae experienced by the family/carer.

This support may help them to adapt and come to terms with the life changes, and so result in better long-term outcomes for both the patient and the family. Many services are available to meet the needs of the patient's family including:

- Education and training about spinal cord dysfunction including the impact for families. Annual events such as Ladies Day, Farmers' Day, Family Day.
- Psychological support
- Pastoral services
- Peer support through interaction with other families
- Peer support through collaborative working from NRH peer support staff and Spinal Injuries Ireland trained peer support services
- Psychosocial assessment and intervention
- Family and or support system counselling
- Information about support and advocacy resources, local accommodation and assistive technology resources.
- Short stay on site facility for family and or carers to trial living independently in the Woodpark Unit.

Discharge Outcomes and Environments

Rehabilitation is a continuous and often lifelong process. The effects of spinal cord dysfunction are long lasting and patients and their families require continued care and support, often for the rest of their lives. The carry-over of skills gained in treatment into daily activities and into home environments is critical to the success of any rehabilitation programme.

Monitoring of outcomes from the programme is important to determine the extent to which the interventions and services have achieved their aims. An assessment of the attainment of rehabilitation goals and discharge outcomes is essential.

The majority of persons are prepared for discharge home and are discharged to home. The NRH Discharge Liaison Occupational Therapist or Community Occupational Therapist will complete home assessments and provide recommendations about any adaptations or equipment required for safe discharge. Some persons at discharge are referred to other services within the continuum of care or to external disability support services. Alternative discharge destinations such as long-term care facilities, assisted living residences, group home or 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 service

Admission Criteria for Inpatient and Outpatient Programmes

The patient must:

1. Have a spinal cord dysfunction due to trauma or other cause, where the condition warrants complex, specialist rehabilitation in the NRH. The SCSC Programme is equipped to care for patients with respiratory insufficiencies including those with tracheostomies and ventilator dependent patients. Patients with any neurological level & ASIA impairment scale spinal cord dysfunction can be considered for admission.
2. Have a peripheral neuropathy resulting in a physical impairment, where the condition warrants complex, specialist rehabilitation in the NRH.
3. Be at least 16 years of age
4. Be medically stable and fit to participate in a rehabilitation programme
5. Be willing and able to participate
6. Have rehabilitation goals

Patients under the age of 16 years requiring the services of the Spinal Cord System of Care are admitted under the Paediatric Family Centred Programme.

Admission to the Inpatient Spinal Cord System of Care Programme is based on the preadmission assessment of level of need and the meeting of the programme's admission criteria. However, the timing of admission to the programme may be influenced by the preadmission assessment of the complexity of the individual's needs and the level of dependency in relation to the Spinal Cord System of Care Programme's capacity to best meet these specific needs at that time.

Acute referring hospitals must give a written commitment to resume care of the patient if no other discharge destination is available following completion of the inpatient rehabilitation programme.

Continuing Stay Criteria:

1. Demonstrate measurable progress towards their goals/targets
2. Demonstrate willingness and ability to participate in the prescribed programme

3. Continue to have the potential to benefit from the interdisciplinary programme prescribed
4. Medical necessity for the 24-hour medical and rehabilitation nursing care.
5. Rehabilitation goals are achieved but the patient and his/her family are making measurable progress towards achieving home discharge (as agreed with the rehabilitation team) which are affected by barriers external to the NRH.
6. Comply with NRH policies

Discharge and Transition Criteria for Inpatient or Outpatient Programmes

To be discharged from the Spinal Cord System of Care programme, one or more of the following conditions must be met:

1. The person has received maximum benefit from the inpatient or outpatient programme or adequate benefit to allow hand-over of care to another rehabilitation service such as a community rehabilitation team.

2. The person has improved to the projected functional level that will allow discharge to a specified environment with or without personal assistance.

3. The person's rehabilitation needs can be met equally well in an alternative environment.

4. The person has experienced a major intervening surgical, medical or psychiatric problem that precludes benefit from a continued intensive rehabilitation programme.

5. The person is no longer willing to be an active participant in the rehabilitation process or is in breach of a relevant NRH policy, as outlined above.

6. The person cancels or does not attend their outpatient appointments in line with the NRH DNA and CNA policy.

Exclusion Criteria:

Patients are not admitted to the service where other needs make it likely that they will be currently unable to benefit from an inpatient or outpatient programme, for example, where medical or psychiatric or behavioural or drug and substance misuse predominates over the physical, psychosocial and cognitive needs of the

patient. This includes Functional Neurological Disorder (FND). FND provides an umbrella term for a variety of symptoms of apparent neurological origin but which current models struggle to explain psychologically or organically.

In these cases, recommendations may be made to the referring person regarding appropriate services.

Patients will be excluded from NRH Outpatient services if NRH cannot provide the service requested.

NRH Outpatient Programme is currently unable to provide:

- Wheelchair Prescription and Provision
- Home and Environmental Assessments
- Discharge Liaison OT services
- Aquatic therapy