



NATIONAL REHABILITATION HOSPITAL

**PROSTHETIC, ORTHOTIC & LIMB ABSENCE REHABILITATION
PROGRAMME**

SCOPE OF SERVICE

(INPATIENT, DAY PATIENT, OUTPATIENT)

Introduction:

The Prosthetic, Orthotic & Limb Absence Rehabilitation Programme (POLAR) at the National Rehabilitation Hospital (NRH) in partnership with Ability Matters, provides specialised, interdisciplinary, coordinated and outcomes-focused rehabilitation of persons with amputation or congenital limb absence.

Amputation most commonly occurs because of vascular disease, diabetes, trauma, infection, or tumours. Congenital limb absence occurs when the whole or a part of the upper or lower limb fails to form normally when the baby is developing in the uterus. Most congenital limb absences are random events with an unknown cause. Depending on the nature of the limb loss, people can present with a range of impairments and resulting disability that may be physical, psychological, social or vocational.

The POLAR Programme is designed to assist people with limb loss and their family/carers to lessen the impact of these impairments and to promote greater levels of functional independence, social participation, autonomy, and community integration. People with amputation or limb absence need to relearn skills, acquire new skills and develop strategies to compensate and manage these impairments.

The POLAR programme links with the Paediatric Programme to provide similar specialist care to children with congenital limb absence or amputation.

Strategic Partnership:

The National Rehabilitation Hospital and Ability Matters entered a formal strategic partnership in 2000. Ability Matters (known as Opcare in the UK) is a private company that has operated in both Ireland and UK since 1991. Ability Matters manufactures and customises prostheses and orthoses for patients from all over Ireland. Prosthetists/Orthotists and necessary administration staff employed by Ability Matters provide the prosthetic service to patients within the programme.

The NRH has a Service Level Agreement with Ability Matters for the provision of a prosthesis/prostheses which ensures appropriate clinical governance. All clinicians employed by Ability Matters work in compliance with NRH policies and protocols. Therefore, persons with amputation or congenital limb absence are excluded from the POLAR Service where they have a prosthesis provided by a prosthetic provider other than Ability Matters / NRH partnership as in these circumstances NRH cannot guarantee appropriate clinical governance and oversight.

Rehabilitation Setting:

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

The POLAR Programme offers In Patient, Day Patient and Outpatient rehabilitation. The plan of care is individualised, and patients can move between the services depending on their need.

The POLAR Inpatient Programme is a 12-bed rehabilitation programme that provides 24-hour, seven-day-a-week medical, rehabilitation and nursing care. The 12 beds are located on Poppy unit on the ground floor. The ward accommodation consists of 12 ensuite rooms.

The Day Outpatient programme accommodates up to 7 patients who can access the NRH on 4 days a week for a full rehabilitation programme similar to the In-Patient programme.

The Prosthetic Outpatient Programme is a consultant service that provides a national centre in the NRH site in Dublin and a regional centre in Cork. Prosthetist-led clinics with option of consultant review are held in a further five satellite clinics.

The remainder of the Interdisciplinary Team (IDT) also offer an outpatient service based on clinical need.

Prosthetic, Orthotic and Limb Absence Continuum of Care

The continuum of care for people with amputation or congenital limb absence encompasses the inpatient, day patient and outpatient rehabilitation phases with linkages to community service providers and follow-up care.

Important in this continuum of care is communication and working linkages between the inpatient, day outpatient and outpatient services and with all internal and external stakeholders to facilitate coordination of care and access to information and services.

The programme provides for fluid movement between the services based on assessment of individual clinical need and psychosocial circumstances. In broad terms the inpatient and day outpatient programmes are designed to meet the more intensive rehabilitation needs of a person with primary amputation but not exclusively so. The outpatient programme focusses primarily on established patients

As the National Prosthetic Service, the POLAR programme has an important role in promoting best practice standards and providing education in aspects of amputation rehabilitation. The service engages with community services and other hospital-based services to provide education days and information about the service available through the programme. The service also advocates for appropriate provision of service to people with limb loss and limb absence.

Patient Pathway:

Following initial referral the referral is triaged by the rehabilitation co-ordinator and the consultant in rehabilitation medicine. The patient is then offered an Outpatient Interdisciplinary Assessment appointment. .

If suitable for a prosthesis, a prescription is raised and sanction for payment is sought. When sanction is received the patient is listed for admission if appropriate. If suitable for non-prosthetic rehabilitation or if sanctioning is not required he/she will also be listed for admission.

Once placed on the waiting list, the rehabilitation co-ordinator will remain the point of contact while awaiting admission. Just prior to admission patients will be contacted by the administration and nursing staff to confirm their admission date.

The waiting list is managed according to

- Primary patients (those receiving their first limb for that level of amputation) will generally be prioritised over established patients.
- Chronological order
- Interdisciplinary requirement of the patient
- Significant clinical need.

Once admitted appointment times are scheduled by the therapy team and patients are provided with a weekly timetable. All attendances are logged onto PAS and therapeutic intervention on THYS.

Each person's programme of therapy will differ in length. The duration of the programme will be decided upon and agreed during the Goal Setting Conference based on patient needs and goals. These goals will be reviewed throughout the course of rehabilitation programme including weekly conference.

On completion of their in/day POLAR programme all patients will be offered a 6 week review phone call and follow-up with the prosthetist or the Interdisciplinary Team (IDT) as required. The date and location of the next follow up is provided on the IDT discharge report. A copy of this IDT Report is sent to all relevant healthcare professionals and the patient themselves on discharge.

INPATIENT AND DAY PATIENT SERVICE

Overview:

The POLAR inpatient and outpatient day patient IDT in conjunction with patients and their families, provide individualised, goal directed treatment plans that are designed to minimise impairment, reduce activity limitations and encourage participation and

community integration. The team strives to address the unique medical, physical, psychological, cognitive, social, behavioural, vocational, educational, cultural, family, spiritual and leisure/recreational needs of people with limb loss and their families and carers.

The POLAR inpatient and outpatient day patient Programme provide:

- Ongoing access to information about services available within a coordinated continuum of care.
- Movement through the limb absence continuum of care
- Linkages with community and stakeholders
- Family/Carer education and support
- Education of persons served, their families/support systems and the community
- Facilitation of opportunities for interaction with others with similar activity limitations

This comprehensive interdisciplinary system of continuum of care ensures that all individuals receive the most appropriate programme of care based on their rehabilitation requirements. Treatment often begins at pre-amputation stage and continues, during the post-acute phase and patients may move between the inpatient and day patient programmes or outpatient therapy programmes depending on need and suitability. Linkages with outpatient services, community support and follow-up services are made to facilitate smooth transition into and from the inpatient and /or day patient programmes and on to outpatients.

Hours of Service

POLAR Inpatient Programme:

The POLAR Inpatient programme is a 12 bedded rehabilitation programme which provides 24-hour, seven-day-a-week medical, rehabilitation and nursing care.

POLAR Day-patient Programme

The POLAR Day Patient Service is a specialised, comprehensive and customised therapeutic program which reflects that of the inpatient service for patients with amputation or limb absence. The programme accommodates up to 7 patients daily who can access the NRH four days a week for an intensive rehabilitation programme. Where it is felt appropriate for a patient to attend at a lesser intensity than other patients this can be accommodated on a reduced intensity programme – through split weeks, shorter days etc. POLAR day Patient rehabilitation is delivered alongside the inpatient programme and patients from both services can be treated in groups as appropriate. The POLAR day Patient medical, nursing, rehabilitation treatment and care is provided four days-a-week (Monday through Thursday), 9.00am to 5:00pm. Some services may be available outside these times by pre-arranged appointment.

The Services Provided For The Person Served

Admission to the service is dependent on meeting the admission criteria. Each patient receives phonecalls and linkages with the rehabilitation co-ordinator. This is then followed with an initial preadmission IDT assessment. This assessment includes assessment of medical and rehabilitation needs to identify their unique medical, physical, cognitive, psychological, social, behavioural, vocational, educational, cultural, family, spiritual and leisure/recreational needs. If a person meets the admission criteria, they are offered rehabilitation best suited to their needs. 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 as part of the education process.

The patient and their family are offered education regarding self-management of their condition, prevention of complications and management of risk factors such as diabetes and vascular disease.

Following admission, the interdisciplinary team members in collaboration with the patient and family, develop a holistic treatment plan incorporating the services that address the identified needs of the person, their family and support network.

The orthotic service to the POLAR programme focus is on provision of prescription footwear for amputation rehabilitation patients, with a view to reducing risk factors that may lead to complications in the remaining limb. The orthotist links with the interdisciplinary team to ensure a comprehensive understanding of the person served and smooth delivery of care.

Services offered in the both the Inpatient and Day Patient programmes to meet these identified needs can include as appropriate:

- Activities of Daily Living training
- Aquatic Physiotherapy
- Art Therapy
- Assistive technology
- Audiology screening
- Behavioural Support
- Clinical Psychological assessment and intervention
- Cognitive training
- Coping and adjustment to disability
- Community Liaison
- Dentistry
- Discharge Planning
- Driving and community transport assessments and training
- Dysphagia assessment and management
- Family and caregiver training and education
- Exercise Physiotherapy and sports
- Fiberoptic Endoscopic Evaluation of Swallowing (FEES)
- Horticulture therapy
- Independent living assessment

- Information regarding entitlements & services
- Medical management
- Mobility training
- Nutritional counselling & management
- Orthopaedic assessment
- Orthotics & splinting
- Pastoral and spiritual services
- Patient Advocacy Service
- Patient and family support system counselling
- Pharmaceutical Care – counselling on medications
- Physiotherapy
- Plastic surgery assessment
- Podiatry/Chiropody
- Prosthetic assessment and management
- Psychiatric assessment
- Radiology Services
- Referral to appropriate care pathway supports
- Rehabilitation nursing
- Relaxation and stress management
- Respiratory therapy
- Safety awareness and training
- Neuropsychological assessment and advice
- Sexuality counselling
- Skincare training
- Spasticity management
- Pain management including Phantom pain
- Smoking cessation counselling
- Urology service
- Vocational assessment
- Wheelchair and seating clinic
- Woodwork

Persons admitted with dual diagnoses may receive services from other specialty programmes as required.

If additional services are required and not available on site, the programme facilitates referral to the appropriate ancillary services.

Examples of these ancillary services include:

- Endocrinology
- Neurology
- Oncological services
- Optician
- Substance abuse counselling
- Vascular surgery

Palliative Medicine

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 medicine 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 amputation 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 are always on the team are:

- The patient (person served) and family
- Rehabilitation Physician
- Rehabilitation Nurse
- Healthcare Assistant
- Pharmacist

And one or more Health and Social Care Professional including:

- Clinical Psychologist
- Dietitian
- Medical Social Worker
- Occupational Therapist
- Physiotherapist
- Prosthetist / Orthotist
- Podiatry / Chiropody
- Admission/Discharge and liaison post

Other team members could include:

- Chaplain
- Dentist
- Aquatic Physiotherapist
- Art Therapist
- Music Therapist
- Sport and exercise physiotherapist
- Horticulture

Consultation with medical specialists could include, orthopaedics, plastic surgery, psychiatry, radiology, respiratory and urology.

Pharmacy Service: NRH Inpatient Pharmacy

Available on site?

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.

Timeliness of response to Order?

Urgent requests for medication are prioritised to be provided on a same day basis, Monday to Friday, 9-5.

Diagnostic Imaging: NRH Inpatient Diagnostic imaging

Available on site?

On-site services to inpatients:

- X-ray service, portable and in the Radiology Department, during normal working hours and afterhours 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 Columcille'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.

The Services Provided for The Families/Carers/Support Systems Of the Person 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/ support system.

Many services are available within the POLAR programmes to meet the needs of the patient's family/ support system including:

- Education about limb loss that may include group sessions, printed material, informal instruction and practical skills training in preparation for discharge
- Counselling services
- Psychological support
- Pastoral services
- Peer support facilitated by the Medical Social Worker on a weekly basis for current patients with monthly past patients attending, through interaction with other families, using social media – Facebook and through local and international support group.
- Information about support and advocacy resources, local accommodation and assistive technology resources.

Discharge Outcomes and Environments

Rehabilitation is a continuous and often lifelong process. The effects of amputation 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.

Most persons are prepared for discharge home and are discharged to home. The NRH IDT led by the Occupational therapist in conjunction with the Discharge Liaison Occupational Therapist and/or Community Occupational Therapist may 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 services and/or housing. The NRH IDT will educate the staff at the discharge location on how to best care for the person served through various forms including outreach visits, IDT Reports, handouts etc. .

Admission Criteria:

Inpatient and Day-patient programmes

To be admitted to the POLAR Inpatient or Day patient programme the patient must:-

1. Have an amputation or congenital limb absence
2. Be under the care of a National Rehabilitation Hospital Medical Rehabilitation Consultant
3. Be medically stable
4. Be at least 18 years of age*
5. Have the potential to benefit from the interdisciplinary rehabilitation process
6. Have medical, nursing or interdisciplinary therapy needs which cannot be met in an alternative setting.
7. If for prosthetic rehabilitation, they must be receiving a prosthesis or have received a prosthesis through the NRH/ Ability Matters partnership.

And for the day-patient programme

8. Be able to provide transport to and from the NRH
9. Priority of admission may be given to patients who have had part of their primary prosthetic rehabilitation in the inpatient Service and are transferring to the day service to complete the programme

Admission to the POLAR inpatient and day patient programme is based on the above criteria and the preadmission assessment of level of need of the person served. The timing of admission to the programme will depend on the programme's capacity to meet these specific needs based on levels of service within the programme.

*Patients under the age of 16 years requiring the services of the POLAR Programme are admitted under the Paediatric Family Centred Programme. Patients aged between 16 years and 18 years and who require inpatient rehabilitation are assessed in consultation with the paediatric team to determine the most appropriate service under which to admit them.

Where it is considered they are best served through the adult programme the POLAR team is alerted to their age and will liaise with the Paediatric team as appropriate.

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. For inpatient programme have 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 including those addressing anti-social behaviour or drug or alcohol use

Discharge / Transition Criteria

To be discharged from the POLAR programme, one or more of the following conditions must be met:

1. The person has received maximum benefit from the inpatient/day patient programme
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. The person has the right to make decisions regarding his or her rehabilitative care, and the right to refuse any portion of the day patient 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.
6. The patient's behaviour warrants the use of the involuntary discharge policy

Exclusion Criteria:

- Persons with amputation or congenital limb absence are excluded from the programme where other needs (e.g. medical/psychiatric/behavioural/drug and substance misuse), predominate over the potential to benefit from specialised rehabilitation care and the physical and psycho-social needs of the patient. In these cases, recommendations may be made to the referring agent regarding other more appropriate services or treatment maybe deferred until an appropriate time.
- The NRH has a Service Level Agreement with Ability Matters for the provision of prosthesis which ensures appropriate clinical governance. All clinicians employed by Ability Matters work in compliance with NRH policies and protocols. Therefore, persons with amputation or congenital limb absence are excluded from either service where they have a prosthesis provided by a prosthetic provider other than Ability Matters / NRH partnership as in these circumstances NRH cannot guarantee appropriate clinical governance and oversight.

Discharge Criteria:

Below outlines the criteria to be discharged from the programme, one or more of the following conditions must be met:

1. The person has received maximum benefit from the programme.
2. The person has improved to the projected functional level that will allow discharge to a specified environment.
3. The person's rehabilitation needs can best be met 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.
6. The person has the right to make decisions regarding his or her rehabilitation care, and the right to refuse any portion of the day patient 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.
7. The patient's behaviour warrants the use of the involuntary discharge policy

And the case of the POLAR day programme any of the above

8. The person is non-compliant with the day patient programme

DNA Policy:

The programme recognises that patients attending the POLAR programme often have several co-morbidities and these can influence the patients' ability to engage with a rehabilitation programme. However, where a patient fails to attend at the times scheduled and fails to contact the service, that patient will be liable to be discharged from the programme.

The patient falls within the DNA policy where they have:

- missed 2 consecutive therapy days without notification,
- where they have missed 3 days therapy within their programme without notification

OUTPATIENT PROGRAMME**Introduction:**

The Prosthetic, Orthotic & Limb Absence Rehabilitation Programme (POLAR) at the National Rehabilitation Hospital (NRH) in partnership with Ability Matters, provides specialised, interdisciplinary, coordinated and outcomes-focused rehabilitation of persons with amputation or congenital limb absence.

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The POLAR Programme is designed to assist people with limb loss and their family/carers to lessen the impact of these impairments and to promote greater levels of functional independence, social participation, autonomy and community integration. People with amputation or limb absence need to relearn skills, acquire new skills and develop strategies to compensate and manage these impairments.

The POLAR programme links with the Paediatric Programme to provide similar specialist care to children with congenital limb absence or amputation.

Strategic Partnership:

The National Rehabilitation Hospital and Ability Matters entered a formal strategic partnership in 2000. Ability Matters (known as Opcare in the UK) is a private company that has operated in both Ireland and UK since 1991. Ability Matters manufactures and

customises prostheses and orthoses for patients from all over Ireland. Prosthetists/Orthotists and necessary administration staff employed by Ability Matters provide the prosthetic service to patients within the programme.

The NRH has a Service Level Agreement with Ability Matters for the provision of a prosthesis/prostheses which ensures appropriate clinical governance. All clinicians employed by Ability Matters work in compliance with NRH policies and protocols. Therefore, persons with amputation or congenital limb absence are excluded from the POLAR Service where they have a prosthesis provided by a prosthetic provider other than Ability Matters / NRH partnership as in these circumstances NRH cannot guarantee appropriate clinical governance and oversight.

Outpatient Rehabilitation Setting

The POLAR Programme outpatient service is located in the NRH Prosthetic Department in the Cedars building.

Hours of Service

The Outpatient POLAR Programme services are usually provided from 8.30am to 5.30pm Monday to Friday. Services are available outside these times by appointment with regular clinics also run on Saturday .

Admission Criteria for POLAR Outpatient Programme

The patient must -

Be under the care of a National Rehabilitation Hospital Physician

Be medically appropriate

Be willing and able to participate

Have the potential for functional improvement

Where prosthetic lead care is provided the person must have a prosthesis/es provided by Ability Matters

Discharge Criteria for POLAR Outpatient Programme

Patients will be discharged from outpatient Services based on the following general criteria –

Agreed goals have been accomplished

The patient's rehabilitation needs can be met at another level of care.

Patient requires a different level of care due to acute medical or other conditions

Patient is not compliant with programme

Patient requests discharge

Range of Outpatient Services Available to the Person Served

- Activities of daily living training
- Adaptive equipment assessment and training
- Assistive technology assessment and training
- Audiology screening
- Clinical psychological assessment and intervention
- Coping and adjustment to disability
- Dentistry
- Discharge planning
- Driving and community transport assessments and training
- Dysphagia assessment and management
- Family and caregiver training and education
- Sports and exercise physiotherapy
- Hydrotherapy
- Independent living assessment
- Information regarding entitlements and services
- Medical management
- Mobility training
- Occupational therapy for patients with upper limb loss/absence
- Orthotics and splinting
- Pastoral and spiritual services
- Patient Advocacy Service
- Patient and family support system counselling
- Pain management
- Pressure ulcer management
- Pharmaceutical Care
- Physiotherapy
- Prosthetics
- Psychosocial assessment and intervention
- Radiology
- Referral to appropriate care pathway supports
- Rehabilitation nursing
- Respiratory therapy
- Safety awareness and training
- Sexuality and fertility counselling
- Skin care training
- Spasticity management
- Urology service
- Vocational assessment

Overview:

The outpatient programme provides a specialist service for assessment and provision of prostheses for people with limb loss or limb absence. It allows for movement through the limb absence continuum of care including ongoing access to information about services available. Below are some examples of outpatient service provided in the POLAR programme

The POLAR outpatient programme provides:

- In-reach service to acute hospitals
- Linkages with the community and stakeholders
- Manufacture and fitting of prostheses and orthoses
- Local workshops providing same-day facility for minor repairs and adjustments
- Continuing education on prosthetic use for patients and their family/ carers

- Comprehensive pre-prosthetic assessment by Interdisciplinary team with access to medical social worker and/or psychologist
- Interdisciplinary pre-amputation consultation
- POLAR Medical Rehabilitation Consultant consultation with or without members of the IDT– for established patients
- Therapy services including Psychology service, Medical Social Work service, Physiotherapy service, Occupational therapy service
- Nursing service including sexual health service
- Vocational assessment service
- Information about support, advocacy resources and assistive technology resources
- Lifelong prosthetic management and follow up
- Review and re-assessment can be requested by the patient without re-referral from GP if they person has been in the service within the previous 5 years
- Consultant lead complex clinic

Location and Hours of Services:

Location	Service	Frequency	Times
National Rehabilitation Hospital Dun Laoghaire Co. Dublin	IDT: Lower limb (Assessment clinic)	Weekly – Friday	9.00 – 12.30
	IDT: Upper limb	Monthly – Wednesday	9.30 – 12.30
	IDT: Established	Twice Monthly	9.30 – 12.30
	Prosthetic led upper and lower limb	Daily – Mon-Fri (also run at Deansgrange clinic)	8.00 – 16.30
	Orthotics & Footwear	3 days /week	9.00 – 17.00
	IDT: Partial Foot Clinic	Monthly	9.00 – 12.30
	Therapy sessions	As required	As required
	Consultant Complex Clinic	Monthly & As required	9.00-13.00 & as required
Galway	Prosthetic lead lower limb service	Once weekly	9.30 – 14.00
	Consultant clinic	Quarterly	9.30 – 14.30
Mayo	Prosthetic led lower limb service	Bimonthly	9.30 – 14.30
Blanchardstown, Dublin	Prosthetic led lower limb service	Twice weekly weekly	9.30 – 12.30
Donegal	Prosthetic led lower limb service	Monthly	9.30 - 12.30

Leitrim	Prosthetic led lower limb service	Monthly	9.30-12.30
Mercy Hospital, Cork	IDT : lower limb	Monday-Wednesday	9.30 – 12.30

Outpatient services

A. **Prosthetic Lead Care**

Following discharge from the in/day patient programme each patient is re-engaged with the outpatient programme. They are first offered an appropriate appointment in a location suitable to the patient, with the appropriate IDT team at six-week post discharge. Following this they will be offered the necessary appointment depending on their need. Ongoing appointments will be offered 3months after that appointment, 6 months after that appointment and then yearly. Ongoing follow-up as appropriate for life is arranged and patients are aware of how and when to initiate such appointments. Where clinically appropriate, this is provided in the clinic that the patient chooses or is most convenient for the patient, see list above.

Orthotic Lead Care

The orthotic service to the POLAR programme focus is on provision of prescription footwear for amputation rehabilitation patients, with a view to reducing risk factors that may lead to complications in the remaining limb. The outpatient orthotic service is delivered on the NRH site. The orthotist links with the prosthetist and the appropriate consultant in charge of patient care to ensure a comprehensive understanding of the person served and smooth delivery of care where the orthotist takes responsibility for initial assessment for the orthotic prescription. Patients continue under the care of the orthotics service with reviews.

Hours of Service:

The outpatient treatment and care is provided five days-a-week (Monday through Friday), at times arranged by appointment.

Admission Criteria:

To be admitted to the POLAR Outpatient prosthetic lead Programme a patient must be referred and:-

1. Have an amputation or congenital limb absence
2. Be under the care of a National Rehabilitation Hospital Medical Rehabilitation Consultant
3. Be medically stable
4. Wish to avail of the service
5. Have the potential to benefit from the rehabilitation process

6. Be receiving a prosthesis through the NRH Ability Matters partnership

Patients who are under 18 years of age are admitted to the outpatient programme and the POLAR programme then links with the Paediatric programme to ensure most appropriate care. If indicated paediatric patients re admitted to the paediatric programme. In this case this will be a joint Paediatric/POLAR partnership.

Exclusion Criteria:

1. Patients, whose needs cannot be met by the support facilities available, will not be offered that therapy at the NRH
2. Patients with amputation or congenital limb absence are excluded from the outpatient therapy treatment where the patient's individual circumstances contraindicate their participation in the therapy program at that time.
3. Risk factors/contraindications will be evaluated prior to the admission to the programme and may require review. In the event of an episode that jeopardises the safety of the patient and/or staff, the patient will be formally discharged from therapy and a new referral will be required to reinstate the therapy programme. This may include medical, psychiatric, behavioural, drug and substance misuse
4. In patients where cognitive, physical and psycho-social needs predominate over the potential to benefit from specialised Outpatient rehabilitation care, recommendations maybe made to the referring agent regarding other more appropriate services.

B. **Therapy Services**

The purpose of the service is to match the needs of the patient with the therapy services available, given that all available support services are in place to provide it.

The service available is a specialised, comprehensive and customised therapeutic program which reflects that of the inpatient service with regards to the POLAR patient.

The POLAR outpatient therapy service in the NRH is designed to assist patients and their family/carers to lessen their deficits and to promote greater levels of functional independence, social participation and community reintegration.

Certain disciplines have the capacity to also offer outreach and in reach appointments. These are provided on a needs-based assessment.

Hours of Service:

The outpatient treatment and care is provided five days-a-week (Monday through Friday), at times arranged by appointment. If requested appointments can be arranged on Saturdays.

Admission Criteria:

1. Meet the Scope of Service criteria for admission to the POLAR programme with regard to diagnosis and age
2. Be under the care of a National Rehabilitation Hospital Medical Rehabilitation Consultant
3. Be medically appropriate
4. Be willing and able to participate
5. Have the potential to benefit from specialised outpatient rehabilitation through the utilisation of a single or multi-disciplinary team approach within a specified timeframe.
6. They must also meet admission criteria specific to a single or multi-discipline therapy
7. Patients must have arranged their own transportation to and from the appointment.

Referrals are assessed by the relevant members of the team are involved in the planning of the admission of patients to the OPD Therapy Service. If there is a known risk, that complicates the program and/or puts patients or staff at risk, then it may be deemed necessary for additional assessments and/or safety plans to be put in place.

Exclusion Criteria:

1. Patients, whose needs cannot be met by the support facilities available, will not be offered that therapy at the NRH2. Patients with amputation or congenital limb absence are excluded from the outpatient therapy treatment where the patient's individual circumstances contraindicate their participation in the therapy program at that time.
 3. Risk factors/contraindications will be evaluated prior to the admission to the programme and may require review. In the event of an episode that jeopardises the safety of the patient and/or staff, the patient will be formally discharged from therapy and a new referral will be required to reinstate the therapy programme. This may include medical, psychiatric, behavioural, drug and substance misuse
4. In patients where cognitive, physical and psycho-social needs predominate over the potential to benefit from specialised outpatient rehabilitation care, recommendations maybe made to the referring agent regarding other more appropriate services.
5. Maintenance therapy is not the remit of the POLAR therapy service

Outpatient Therapy Service Referral Pathway

A patient can be referred to the outpatient POLAR Therapy Service at the NRH

1. On completion of their inpatient rehabilitation program.
2. From the IDT POLAR and prosthetic Clinics
3. By Medical Clinic Consultant Referral

New referrals are scheduled an appointment or placed on a waiting list as indicated and as capacity allows. The POLAR Therapy Service includes a wide range of disciplines (outlined below). The need for particular disciplines for each patient served is determined by the assessment of the patient's individual medical and rehabilitation needs. POLAR Programme Therapy members could include:

- Clinical Psychologist

- Social worker
- Occupational Therapy
- Physiotherapist

Therapy Provision

Therapy provision to the outpatient service is provided in three formats:

1. Attendance at Interdisciplinary Clinics in an advisory/consultative capacity
2. Single Discipline assessment and intervention i.e. therapy sessions provided by an individual therapist for a single patient and/or group of patients
3. Interdisciplinary assessment and intervention, i.e. therapy sessions provided with a therapist from another discipline. Interdisciplinary therapy sessions are conducted when therapists are working on shared therapy goals with an individual patient/s.

The OPD Therapy Team also refer onto specialist services within the NRH such as vocational or driving assessments if clinically indicated.

C.

Consultant Led IDT Clinics

Admission Criteria:

Have medical, nursing or interdisciplinary therapy needs which cannot be met in an alternative setting.

To be admitted to the POLAR outpatient programme a patient must be referred and:-

1. Have an amputation or congenital limb absence
2. Be under the care of a National Rehabilitation Hospital Medical Rehabilitation Consul
3. Be medically stable
4. Wish to avail of the service
5. Have the potential to benefit from the rehabilitation process
6. Be receiving a prosthetic care through the NRH Ability Matters partnership

Patients who are under 18 years of age are admitted to the outpatient programme and the POLAR programme then links with the Paediatric programme to ensure most appropriate care. If indicated paediatric patients re admitted to the paediatric programme. In this case this will be a joint Paediatric/POLAR partnership.

Referral pathway:

1. Patients may also be referred by
 - a. Consultant referrals from patients with a relevant amputation or congenital limb absence: once a letter of referral is received and triaged by the NRH consultant and the admissions liaison staff member - an appointment is requested and sent to the patient.
 - b. Treating prosthetist: If they feel it is appropriate, they may request Medical OPD/IDT Review

- c. General practitioners: Previous patients of the service who have fallen out of the system or who require reassessment.
- d. One consultant in rehabilitation to another

(i) Primary Initial Assessment Clinic

Once referred to the outpatient interdisciplinary clinics, following triage by the consultant and the rehabilitation co-ordinator patients are seen by the interdisciplinary team members. Primary patients are appointed to an Interdisciplinary team assessment, which they can attend from where they currently reside – acute hospital, stepdown/nursing home or in the community. If clinical condition allows patients are appointed to the clinic most convenient to them. Each patient receives an initial assessment by the interdisciplinary team, to identify their medical, physical and social needs. A discussion of the patient’s goals for rehabilitation is carried out with the patient and support network to inform the most suitable prescription (if any) for each individual.

Outcomes / Coordination of Services:

Following the interdisciplinary clinic, the team meets at the end of the clinic to discuss the patient and a plan of action is decided upon.

1. In the case of a primary patient where admission for prosthetic rehabilitation is deemed appropriate a discussion of the patient’s goals for rehabilitation is carried out with the patient and support network to inform the most suitable prescription (if any) for each individual. Sanctioning is sought for this prescription and when received, the patient will then be placed on the appropriate waiting list
2. Therapists may decide to see the patient for treatment as an outpatient or may refer to a community colleague either prior to admission in the case of a primary patient or this may be deemed the most appropriate result of assessment in the case of an established patient.
3. If another medical opinion is necessary, then a letter of referral is written by the doctor

All primary referrals are received at the National Rehabilitation Hospital and patients are registered on the hospital Patient Administration System (PAS). Patients are also registered on Ability Matters Clinical Information Management System (REHAPP).

Admission to the service is dependent on meeting the admission criteria. The person served and their support network and families are offered appropriate information and opportunity for feedback at every stage of the process and are actively involved in decisions regarding their prosthetic prescription and care. Once a prescription has been formulated the service links with the HSE (or other appropriate funding source). When funding is confirmed for the prosthesis, depending on the needs of the primary patient they are placed on the inpatient or day patient waiting list under the governance of the rehabilitation consultant.

Those that are deemed unsuitable for admission are offered advice and/or onward referral and their referring team are contacted explaining the decision.

All patients are provided with education on all aspects of the prosthesis by the team, particularly in relation to function of the prosthetic components. The team will also provide detailed wear advice and explain the fundamentals of donning and doffing the prosthesis appropriately. The patient and their family are offered education regarding prevention of complications and management of risk factors such as diabetes and vascular disease.

(ii) Established Clinic:

These appointments are based on need and may involve a consultant in rehabilitation medicine only or one or many members of the IDT may also be in attendance. Often patients attending this clinic have previously been discussed at a fortnightly meeting with the prosthetists, medical consultant, programme manager and rehabilitation co-ordinator.

Outcomes / Coordination of Services:

Following the interdisciplinary clinic, the team meets to discuss the patient and a plan of action is decided upon.

1. In the case of an established patient where admission for prosthetic rehabilitation is deemed appropriate a discussion of the patient's goals for rehabilitation is carried out with the patient and support network to inform the most suitable prescription (if any) for each individual. Sanctioning is sought for this prescription and when received, the patient will then be placed on the appropriate waiting list.
2. If the persons needs can be met in an outpatient capacity individual team members may decide to see the patient for treatment as an outpatient or may refer to a community colleague either prior to admission in the case of a primary patient or this may be deemed the most appropriate result of assessment in the case of an established patient.
3. If another medical opinion is necessary, then a letter of referral is written by the doctor

All patients are provided with education on all aspects of the prosthesis by the team, particularly in relation to function of the prosthetic components. The team will also provide detailed wear advice and explain the fundamentals of donning and doffing the prosthesis appropriately. The patient and their family are offered education regarding prevention of complications and management of risk factors such as diabetes and vascular disease.

(iii) Complex Clinic:

This clinic allows a consultant in rehabilitation refer to another consultant in rehabilitation for advice or a second opinion. Persons are often invited to attend this clinic if prosthetic provision has proven difficult or if revision surgery is required. Other members of the IDT may also be in attendance, as clinically required.

Upper Limb Service Scope of Service

This Scope of Service forms a section of the overall Prosthetic Orthotic and Limb Absence Rehabilitation Programme Scope of Service.

The Prosthetic, Orthotic & Limb Absence Rehabilitation Programme (POLAR) at the National Rehabilitation Hospital (NRH) in partnership with Ability Matters, provides specialised, interdisciplinary, coordinated and outcomes-focused rehabilitation for persons with amputation or congenital limb absence.

Within this context the POLAR Upper Limb Service is a specialised, comprehensive and customised therapeutic program which reflects that of the lower limb service for patients with upper limb amputation or limb absence. The Upper Limb Service offers In-patient, Day Patient and Out-patient prosthetic and non-prosthetic rehabilitation. The plan of care is individualised and person can move between the services within the programme depending on their needs. The Programme is offered to persons attending the NRH. As a tertiary centre it also has the benefit of access to specialist services including Environmental Assistive Technology Clinic, Splinting, Driving and Vocational Assessment.

As a result all persons should receive their treatment in the National Rehabilitation Hospital with limited exception – see Appendix 1 and 2.

Structure of Service:

The POLAR Upper Limb service provides a consultant led out-patient clinic once monthly in the NRH or as need requires. Prosthetist consultation and review is provided Monday – Friday. For those requiring rehabilitation the service offers medical, nursing, and rehabilitation treatment five days-a-week (Monday through Friday), 9.00am to 5:00pm as inpatients and Monday to Thursday if a person is appointed to the POLAR Day programme. Some services may be available outside these times by pre-arranged appointment. Outpatient Occupational Therapy, Physiotherapy, Medical Social Work, Dietetics and Psychology is available as indicated and on a needsbasis to upper limb amputees accessing the service.

Admission Criteria:

The admission criteria are in line with the main Scope of Service document.

The most appropriate plan of care (inpatient/day patient/outpatient) is discussed by the interdisciplinary team following an attendance at the Upper Limb Absence Clinic. A letter of referral is then sent by the Upper limb Absence Consultant to the Consultant under which team the person is likely to be admitted or to the required therapist/psychologist. The most appropriate person from the Upper Limb Absence team will act as a link person to attend the appropriate admissions meeting as required. If there is a known risk that complicates the programme and/or puts persons or staff at risk, then it may be deemed necessary for additional assessments and/or safety plans to be put in place. In the event that a risk to the person or staff is identified, an appropriate risk

assessment and management plan should be implemented to mitigate risk to persons and staff.

Exclusion Criteria for the POLAR Upper Limb Service:

The exclusion criteria are in line with main Scope of Service document.

Discharge Criteria for POLAR Upper Limb Service:

Inline with the main Scope of Service document.

Upper Limb Services provided for The Persons Served:

In line with the main Scope of Service document.

Upper Limb Therapy Team:

In line with the main Scope of Service document.

Outpatient Therapy Provision:

Person served may access one or more therapy at any one time as indicated during assessment. Therapy in the Upper Limb service is provided in three formats:

1. Attendance at **Upper Limb Clinic** in an advisory/consultative capacity
2. **Single Discipline** assessment and intervention i.e. therapy sessions provided by an individual therapist for an individual or a group
3. **Interdisciplinary** assessment and intervention; i.e. joint therapy sessions provided with a therapist from another discipline. Interdisciplinary therapy sessions are conducted when therapists are working on shared therapy goals with an individual

The Upper Limb Therapy Team also refers onto other specialist services within the NRH such as vocational or driving assessments if clinically indicated.

Pathway:

Following initial referral and triage, if appropriate for the service they are appointed to an Out Patient Consultant Led Assessment clinic:

- If not suitable for a prosthesis alternative options will be explored with the person served.
- If the person is interested and is deemed potentially suitable for the prosthesis this will be further addressed

- Once deemed suitable for a particular prosthesis, a prescription is raised. When sanction is received they are again seen in an outpatient clinic for casting and manufacture of the prosthesis is commenced. When the limb is manufactured to fitting stage they will be appointed to outpatients for delivery of the prosthesis or is listed for admission to either the inpatient, outpatient, or daypatient rehabilitation programme as appropriate.
- Rehabilitation of Paediatric will be coordinated with the Paediatric team.

Persons with upper limb absence are admitted to the in/day patient service as described in the main section of document.

Appendix 1 – Satellite clinics provision of Upper limb service

As per the scope of service all upper limb persons served are to be referred into the NRH for assessment, prescription, and limb manufacture process. This is aimed at conserving the skill set of the team especially the prosthetist.

However the situation may arise that they presents at a satellite clinic with specific requests without a scheduled appointment for example a glove change, mechanical repair, socket adjustment, prescription request. Following explanation that all needs are managed through the IDT based in the NRH with the following exceptions and when its safe to do so.

The prosthetist in a satellite clinic can :

- Changing a glove and
- Performing mechanical repair ie re-glue padding or leather. This is only to occur if it is safe to do so.

The prosthetist in a satellite clinic can not :

- Make socket fit adjustments
- Change limb set up, such as length, alignment, harness settings
- Discuss prescription change
- Engage in any casting, fitting or limb production activities
- Test for myoelectric sites

Any unscheduled satellite clinic attendance should be flagged up to the Primary upper limb prosthetist for discussion. The primary upper limb prosthetist should then follow due process as per the scope of service.

Appendix 2: Attendance of primary upper limb prosthetist at satellite

It is understood that on occasion the primary upper limb prosthetist may be providing cover at NRH satellite clinics for lower limb prosthetic care. These are located in Galway, Mayo, Leitrim and Donegal.

In this circumstance prearranged upper limb care may be carried out at the satellite clinic when the following criteria are met:

- Upper limb prosthetist discusses the case with designated upper limb consultant and the IDT to outline goal of proposed appointment prior to appointing
- Appointment is aimed for casting, fitting or limited achievable adjustments and repairs
- Upper limb prosthetist can access the appropriate workshop tools to the satellite clinic
- Persons served are made aware that the appointment is only available due to primary upper limb prosthetist attending the satellite clinic
- Persons served are made aware that appointment does not set a precedent for future care being out with the NRH
- Persons served are made aware that they will continue to attend NRH for all appointments after the satellite appointment

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