Brain Injury Program Scope of Services

Our Mission

The mission of the Brain Injury Program is to assist our patients in achieving their highest possible level of independence. This is consistent with Helen Hayes Hospital’s core values and mission, in that it promotes independence and health through high quality, cost effective medical rehabilitation care with dignity and respect for all.

Our Patients

The Brain Injury Program is designed to meet the needs of a culturally diverse population of individuals from age 14 through the life span, with a focus on traumatic brain injury, aneurysm, sub-dural hematoma, and brain tumor. Patients who enter the Brain Injury Program at Helen Hayes Hospital are fortunate as our program offers the entire continuum of rehabilitation services from coma recovery, acute rehabilitation, out-patient services and Transitional Rehabilitation center day program.

We consider and accept referrals from all over the country, however our top referral sources are Vassar Brothers Medical Center, Good Samaritan Hospital, Nyack Hospital, Westchester Medical Center, and Columbia Presbyterian Medical Center. Helen Hayes Hospital accepts most insurance, but if your insurance is not contracted fees can be negotiated. Helen Hayes has contracts with most major payer sources but our top five are: Medicare, Blue Cross, Aetna, United Healthcare and Medicaid.

Our Approach and Our Rehabilitation Team

Helen Hayes Hospital’s Brain Injury Program is an individualized combination of medical and therapeutic interventions. The program offers patients the opportunity to be placed in the Neuro Recovery Program and or progress into the acute rehabilitation program. The determination for either program is made through information gathered from the pre admission and admission process and most importantly from the initial evaluations and team consultation.

The acute program offers an intensive interdisciplinary approach, designed specifically for each patient based on needs and goals. The focus is most typically on improving activities of daily living (bathing, grooming, eating, dressing), adaptive equipment assessment and use, upper and lower motor function mobility training, custom seating, cognition and memory, exercise and strengthening, physical endurance, health and nutrition management, mobility in the home and community, perceptual/cognitive skills, speech/language difficulties, swallowing problems, emotional control, social skills and behavioral management.

For patients who are not yet ready for acute rehabilitation the inclusion of our Neuro Recovery Program serves to provide a more complete continuum of care and service for brain injury patients who are in a coma or near coma.

The Neuro Recovery Program was developed in 1993 and is specifically designed to prevent or minimize secondary complications of traumatic brain injury, which are commonly observed in comatose head injury survivors. Complications can include muscle contractures, skin breakdown, pulmonary issues and blood clots. The program provides unified, interdisciplinary services with a focus on Coma stimulation, vent weaning, swallow management, mobility training, strengthening and exercise regimens, specialized seating, physical endurance and health and nutrition management. The goal is to minimize the chances of secondary complications when the head injured survivor transfers to the next phase of their rehabilitation.

This program also offers access to cognitive testing and counseling from our team psychologist.

Helen Hayes Hospital is affiliated with NewYork-Prebyterian Healthcare System.
Medical Program Director. Our Attending Physician is a board certified neurologist who coordinates the Brain Injury Comprehensive Inpatient Program. He is a member of the New York State Head Injury Association, Editor of Journal of Brain Injury, and participates annually in the New York State Head Injury Association conference. Our Physician has an active clinical practice and participates in quality assessment activities. He oversees the interdisciplinary treatment team. A physician is always available for medical management 7 days per week, 24 hours per day. A Nurse Practitioner works closely with the MD and team to evaluate, establish treatment plans and manage the care of our patients. Upon admission the medical staff will perform a physical examination and a comprehensive review of all medical systems is completed. All findings are discussed with the patient if possible, and or family/caregivers. The anticipated level of recovery and function at the time of discharge is also discussed. An individualized treatment plan is developed with each patient and this plan includes the patient's and family/caregiver goals as well as the rehabilitation team's knowledge and experience in guiding patients towards realistic goals. Current medications are reviewed and adjusted as our physician may feel is warranted. The treatment plan addresses each patient's medical, physical and psychosocial needs. This plan is reviewed with the patient and family shortly after initial team rounds and is modified as necessary based upon the degree of progress seen over time.

Interdisciplinary Team. The interdisciplinary Brain Injury treatment team consists of a the Neurologist, Nurse Practitioner, Therapy Program Director, Case Manager, Psychiatrist, Neuropsychologist, Patient/Caregiver Liaison, Occupational, Physical, Speech-Language and Recreation Therapists, Registered Nurses, Respiratory Therapists, a Dietician and a Vocational counselor. The primary team meets twice a week at formal rounds, and huddles on all non-rounds days or informally as needed. All are formal venues to identify and discuss physical, cognitive, and social progress or issues amongst the interdisciplinary team. Treatment plans, goals and progress is documented on the interdisciplinary rounds forms, and are discussed at weekly rounds. The length of stay is an interdisciplinary team decision formalized and modified as needed at formal rounds.

The Nurse Manager oversees all 3 shifts of nursing staff seven days/week. Often coordinates and oversees resident satisfaction surveys and provides consult for all resident issues. All patients receive 24 hour nursing care by licensed, Registered Nurses (R.N.'s) and CRRN----nurses having earned specialty certification in rehabilitation (CRRN). In addition we have HCA's (Health Care Assistants) to provide assistance with Activities of Daily Living (ADLs) and transfers.

Therapy Program Director. The Therapy Clinical Program Director oversees and coordinates all therapy programming. The Program Director ensures that all persons served meet the criteria for admission to the program, receive an appropriate individualized, interdisciplinary treatment program, receive a minimum of 3 hrs of comprehensive therapy a day and ensures achievement of the predicted outcomes. The Clinical Program Director is available to meet with patients as well as families/caregivers as needed, to explain or discuss the program or address any questions, comments, concerns etc.

Our occupational therapists evaluate the cognitive functioning of each patient as well as their ability to perform and carry out ADL’s (Activities of Daily Living). OT is also available to assess the adaptive equipment needs of our patients. OT evaluates the patient’s safety needs for current environment as well as for discharge setting. Our OT staff assesses physical impairments and functional limitations of the upper body. Our adaptive driving program, and home and food management center allow OT to assist our patients in their transition from hospital to community/home. Functional Electrical Stimulation & vibration therapy are some of the evidenced based treatments we offer through our OT discipline.

Our physical therapists address lower body function, seating, mobility, respiratory and skin/circumcision issues. A therapist with experience in Brain Injury works one-on-one with the patient, providing therapeutic interventions designed to regain function and enhance mobility. Physical therapists, who address physical impairments and functional limitations, will assess strength and flexibility and utilize individualized exercises and hands-on techniques to restore the greatest degree of function and mobility. PT and OT often work together to assist patients and their family/caregivers to evaluate the home for necessary home modifications. Tilt table activities, standing frames, Functional Electrical Stimulation, and Locomotor Training are some of the tools we use for our patient’s specialized needs. Complex seating issues are dealt with in consultation with our Center for Rehabilitation Technology (CRT).

Our Speech Language Pathologists assist our patients with speech, swallow, cognitive and communication difficulties. Those patients who are on ventilators and tracheotomy tubes are taught how to use their speaking valves by our therapists. Bedside swallowing evaluations with blue-dye, and a fluoroscopic modified barium swallow &/or Fiber optic Endoscopic Evaluation of Swallow (FEES) are also provided. Diet advancement and the teaching of protective swallowing techniques are also part of the speech therapy programming that we offer. These therapists also have specialized skills in teaching breathing skills and secretions clearance techniques to assist in the ventilator/trach weaning process.

Our Case managers work closely with the therapy and medical teams to facilitate communication with patients and families/caregivers regarding updates on progress, as well as information regarding discharge planning, to home or another facility, arranging for home care, outpatient therapy and nursing home services. They are available for guidance to both patients and caregivers especially for transition, discharge and long term planning where appropriate as well as hiring of personal care assistants and other available resources.

Our Respiratory Therapists are available for all trach and ventilator patients to improve the chances of successful weaning. The Respiratory team will provide training necessary for those patients remaining on the
ventilator or with a tracheotomy to ensure a smooth transition home.

The Center for Rehabilitation Technology (CRT) specializes in the application of cutting edge, assistive technologies that enable individuals with disabilities to increase control of their lives. CRT’s goal is to develop the most highly individualized, integrated assistive technology system for each child and adult it serves, specifically, one that eliminates barriers to independence, improves functioning and quality of life, and makes the home, school, and workplace user friendly. The CRT program includes the following specialty service areas:

- Seating and Wheeled Mobility
- Augmentative Communication
- Computer Access/Environmental Controls
- Job Accommodations
- Assistive Devices for Daily Living
- Rehabilitative Engineering

In order to better serve its patients and the community, the CRT expanded its services to individuals with disabilities by the creation of a Technology Demonstration Center: The Goldman Center. This state of the art showroom allows patients and families the opportunity to explore an extensive selection of state of the art assistive technologies for patients, their families and other health care clinicians. Specialists at the center will provide demonstration of equipment and computer systems designed to improve the daily lives of individuals with special needs with Open houses for consumers, monthly scheduled tours for professionals, specific tours upon request, and open access times to professionals. Consumers visiting the Center will be able to view & access to a comprehensive selection of devices from each specialty area. Demonstrations & educational seminars are available to patients/consumers and their family/friends.

Durable medical equipment needs: are addressed by all team members throughout the continuum of care, whether during an inpatient stay or as an outpatient.

Urology Services: An urologist is on staff and available for consultations and evaluations. Urodynamic testing is performed on-site.

The Prosthetic Orthotic Center specializes in providing a full range of evaluation, fabrication and follow-up services, ensuring accuracy, safety, comfort and appropriateness of a variety of devices through the continuum of care.

Aquatic Therapy: Aquatic Therapy is offered in our beautiful warm water aquatic facility. Both therapeutic and recreational opportunities are available to patients and all community members.

Vocational Rehab: Certified Vocational Rehabilitation Counselors assess and assist our patients when needed throughout the continuum. They also can serve as a liaison between the patient and their employers, and assist in job modifications that may be necessary.

Psychosocial issues are managed in an interdisciplinary manner. Our Patient Family/Caregiver Liaison is available on the floor to assist with any issues that may arise or to meet with families/caregivers as needed. A team Neuro Psychiatrist and Neuro Psychiatrist are also available.

For those individuals with cognitive impairments interfering with rehabilitation or thought to potentially impact return to function in the community may be referred for comprehensive neuropsychological assessment. Results of these evaluations are incorporated into cognitive & behavioral remediation strategies utilized by the team and specifically the Speech and OT staff providing the cognitive therapies.

Support Groups & Advocacy: Helen Hayes Hospital offers a monthly support group for inpatients, outpatients, and community residents as well as their families and caregivers. These meetings offer opportunities for peer counseling, consultation for accessible travel information, self-advocacy, resources for community re-integration, benefits counseling, and emergency preparedness and accessibility rights.

Recreational Therapy: These services are designed to help improve leisure function and independence as well as reduce the effects of injury or illness. The program may include adapted leisure activities, leisure education, community reintegration, leisure time management and community recreation resources. They also offer a daily meditation class. Diversional services offered include: pet therapy; strolling musician; performing arts program; and special events.

Adaptive Sports and Recreation: is incorporated into the rehabilitation program, and can continue once patients are discharged back to the community. Exposure to new leisure activities, as well as re-introduction to activities favored prior to being injured, speeds the recovery process and demonstrates that living a full and enjoyable life is within reach. We have an Adapted Sports Coordinator who organizes the program.

Current and former patients, as well as individuals with disabilities living in the community, are given opportunities to participate in a range of recreational activities. All activities are supervised by trained staff, taking into account individual needs and abilities. Activities include the following:

<table>
<thead>
<tr>
<th>Aquatics</th>
<th>Gardening</th>
<th>Fishing</th>
<th>Golf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoga</td>
<td>Paintball</td>
<td>Kayaking</td>
<td>Rowing</td>
</tr>
<tr>
<td>Basketball</td>
<td>Glider Planes</td>
<td>Sailing</td>
<td>Waterskiing</td>
</tr>
<tr>
<td>Hand cycling</td>
<td>Snow skiing</td>
<td>Softball</td>
<td>Bowling</td>
</tr>
<tr>
<td>Archery</td>
<td>Rock climbing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Our Admission Criteria

All traumatic brain injuries, aneurysms, subdural hematomas, subarachnoid hemorrhages and brain tumors, anoxic brain injuries, which are less than four months post injury are the customary candidates for inpatient programs.

The patient’s attending physician, (typically from an acute care setting) deems the patient medically clear to participate in individual/ group therapy daily. (Please see more detailed criteria in this section of the manual).

A Helen Hayes Hospital Referral Specialist does a pre-admission assessment of medical and rehabilitation needs to assure potential
Brain Injury Program Scope of Services continued

benefit from the program. All levels of the Ranchos Los Amigos Cognitive Scale will be screened and reviewed with consideration as to the time of injury and age of patient.

For continuity of care it is necessary that the Brain Injury team receive a copy of the patients chart with a discharge summary including:

- History and physical
- All consults
- Recent medication list including date and time of last dose
- Nurses transfer summary
- Recent progress notes
- Lab work (last several days)
- Any diagnostic test results: (chest x-ray, report, echocardiogram, ultrasound, CAT Scan, MRI, etc.)
- The most recent CT, MRI or MRA

We consider and accept referrals from all over the country, however top 5 referral sources are Vassar Brothers Medical Center, Good Samaritan Hospital, Nyack Hospital, Westchester Medical Center, and Columbia Presbyterian Medical Center. Helen Hayes Hospital accepts most insurance, but if your insurance is not contracted fees can be negotiated. Helen Hayes has contracts with most major payer sources but our top five are: Medicare, Blue Cross, Aetna, United Healthcare and Medicaid.

Program Description

Our inpatient units are located on the top floor of the building on the 4a and 4b units. Upon admission to the service, patients will be evaluated by the team and a plan of care is established in the first 24 hours. As part of the orientation to our facility, they receive an admission’s packet that contains information regarding the services provided at the hospital, the services disclosure statement, pertinent phone numbers, contact information, what to expect while here (See admission’s binder for more details).

Typical services include rehabilitation nursing, physical, occupational, speech, and recreational therapies, psychiatric services, behavioral services, dysphagia and swallowing management, diet progression, cognitive retraining, neuro-psychology, patient/family education, nutrition services, ventilator weaning home/food management training, and social services/discharge planning.

As said earlier, Helen Hayes Hospital offers an acute rehab program, or for patients who have sustained a recent, severe brain injury and are in coma, we offer the option for the Neuro Recovery Program. The determination for which program is made through information gathered from the pre admission and admission process and most importantly from the initial evaluations and team consultation.

In the Neuro recovery program, in the first 30 days of the program, each patient receives intensive coma stimulation program as well as care to prevent the secondary complications that often accompany coma. Case management is available to assist the family with discharge planning upon admission into the program.

Continued participation beyond the initial 30 days is dependent upon significant measurable gains. This gain is measured through use of the JFK Coma Scale. The JFK Coma scale is a tool used to measure degrees of coma recovery. At the end of the 30 day evaluation period, a 6 point gain is these scoring system will be considered evidence that the patient is making gains and may benefit from continued participation in the Neuro Recovery Program. If the patient is eligible to continue, they will enter a 2nd 30 day coma stimulation period, which is again evaluated with use of the JFK scale. At the completion of the second 30 day period the patient must be eligible for acute rehabilitation as evidenced by FIM score improvements, to qualify for continued hospital stay. If at the end of this period, the patient is unable to participate in acute rehabilitation, the case manager will assist her family/caregivers in instituting the discharge plan. Patients who are discharged and show improvement at a later date may be evaluated for our active rehabilitation TBI program.

The acute rehabilitation program offers an intensive interdisciplinary plan, designed specifically for each patient based on functional needs and goals. The focus is most typically on mobility training, custom seating, activities of daily living, cognition and memory, exercise and strengthening, adaptive equipment, physical endurance, health and nutrition management. Our programs also offer vent–weaning and swallow management as well as access to cognitive testing and counseling from our team psychologist.

The amount of therapy provided, both the number of disciplines involved as well as the amount of time per discipline, is individualized. While the total time may vary on different days relative to each patient’s tolerance and needs, the minimum patients will receive is three hours of therapy/day for at least 5 days per week. The therapy day begins around 8:00 am and ends generally around 4 pm, but can be modified based off patient need. Each patient is provided with an electronic individualized schedule of a therapy program and this schedule is updated and or modified as needed with regard to patient tolerance and fatigue. Modifications are always made for cultural or religious preferences/needs.

The practice of therapy extends beyond the individual sessions throughout the entire 24 hours when the rehabilitation nursing staff reinforces the therapeutic techniques during daily activities.

The average length of stay in the acute rehab program is about 30 days. Patient progress is formally reviewed on a weekly basis by the team. Progress is measured using the Functional Independence Measure Instrument (FIM), all team members are required to be certified in the use of the tool. The team and patient work towards preventing, minimizing impairments, reducing disability, and achieving predicted outcomes.

As needed other professionals may be added to the team for specific services. Available adjutantive and/or diagnostic services are: Audiology, Chaplainry, Chemical Dependency Counseling, Diagnostic Radiology, Driver Assessment, Driver Education, ENT Services, Orthotics &/or Prosthetic Services, Laboratory Services, Ophthalmology Consults, Respiratory Therapy, The Center for Rehabilitation Technology, and Vocational Rehabilitation.

The interdisciplinary team along with the patient, is goal directed with a focus on maximizing the patient's functional status in the intended discharge environment. This destination is ideally the home, with either home services or referral for our patient neurological services, but sub- acute or a long term facility as also options.
The Helen Hayes Hospital Out-Patient Neurological Program provides an innovative option for shortened hospital stays, bridging the gap between traditional inpatient, homecare and outpatient rehabilitation programs. HHH OPN is located on the 1st floor and offers a smooth continuum of comprehensive and intensive therapeutic services focusing on promoting maximal independence and well-being. The HHH OP Neuro area is open Monday – Friday from approximately 8:00am to 5:00pm, often hrs will vary based on patients needs. The Brain Injury Cognitive Program provides an individualized outpatient rehabilitation program designed to work on the problems that impact on how the patient functions in everyday life. These activities may include dressing, planning a meal, balancing a checkbook, driving etc. The Brain Injury Cognitive Program is offered during the hours the OPN center is open.

The Day Program at the Transitional Rehabilitation Center Day which is located on our lower level, allows individuals recovering from brain injury the opportunity to practice and be accountable for their daily living skills in a supervised and supportive environment.

Following inpatient rehabilitation, most individuals with TBI need ongoing supportive services to help them adjust to their new limitations and become as independent as possible.

The Transitional Rehabilitation Program provides service coordination, counseling, life skills training, behavioral programming and social and recreational opportunities, along with Whatever It Takes, to help participants begin the next phase of their life.

Education

Patient and family/caregiver education is an ongoing individualized process. Each discipline provides educational information through the use of videos, brochures, pamphlets and didactic discussion.

Community education is done through various modalities, i.e. Internet, radio. The Head Injury Support Group meets monthly at Helen Hayes Hospital. Guest speakers provide important information discussion and support to Head Injury survivors, families and caregivers. We also offer extensive education to the professional community via symposiums, expos, in-services, and poster presentations at professional conferences.

Advocacy

The interdisciplinary Brain Injury Team is at all times advocating for the person served. This can take many forms and may include educating family, friends and siblings about access to programs and services with activity limitations and participation restrictions; arranging for appropriate counseling and support services; enabling sibling/peer support.

Discharge Criteria

Discharge of the patient to the appropriate environment is critical to the success of the Brain Injury Program. Following inpatient rehabilitation, patients can be discharged to home, OP Neurological Rehab, sub acute or long term care programs. HHH also offers the day program at the TRC, where patients with higher levels of function can refine their interpersonal and organizational skills. The Day Program at the Transitional Rehabilitation Center serves as an important final step in transitioning back to the community.

A tentative plan is set upon day of admission and an intended discharge date is projected. With safety as the bottom line, discharge occurs when the patient and/or family:

• Have accomplished their goals that were established with therapy
• No longer require an intensive rehabilitation setting
• Could be safely managed in an alternative environment
• Have an acute medical need which prohibits participation in the rehabilitation program