**The Stroke Rehab Program**

Wake Forest Baptist Medical Center’s Inpatient Stroke Rehab Program partners with patients, families, and support systems to deliver services that focus on prevention, increasing functional independence, and maximizing the quality of life for individuals age 13 and older who have experienced a stroke. Patients admitted to the Program commonly exhibit decreased strength and sensation; impaired posture, movement, and balance; impaired communication; difficulty swallowing; and impaired bowel/bladder function. These deficits may interfere with the patient’s ability to walk, communicate, and perform activities of daily living such as dressing, bathing, feeding, and toileting. The goal of the rehab process is to maximize independence and the patient’s ability to return to life roles and activities that include driving, working, returning to school, social events, and community activities. The Stroke Rehab Program develops individualized treatment plans aimed at assessing patient risk, promoting functional gains, and teaching the patient and family effective coping skills for life after discharge from rehab.

**Philosophy of Care**

Each patient is unique, with specific needs, capabilities and potential. Therefore, each patient’s treatment plan is individualized and modified as recovery progresses. The rehabilitation team, patient, and family/caregivers work together to set and achieve functional improvement goals.

**The Care Team**

The Program’s success is attributed to its comprehensive, interdisciplinary team, which includes the patient, family members/caregivers, and professionals specializing in:

|  |  |  |
| --- | --- | --- |
| Rehab Medicine | Clinical Nutrition | Social Work |
| Rehabilitation Nursing | Occupational Therapy | Vocational Rehab\* |
| Clinical Psychology | Physical Therapy | Assistive Technology\* |
| Neuropsychology | Speech Language Pathology | Recreation Therapy |

\*These services are provided by team members who are not directly employed by WFBMC, but who work very collaboratively with the Wake Forest Baptist Medical Center Rehab Programs.

**Scope of Services**

* Board-certified physicians specializing in Physical Medicine and Rehabilitation (PM&R) direct the patient’s plan of care on a daily basis.
* Rehabilitation Nursing is provided 24 hours a day, 7 days a week
* Each patient receives a minimum of 15 hours of therapy each week, including a combination of physical therapy, occupational therapy, speech therapy, and/or orthotics/prosthetics training. The types of therapy, intensity of therapy, and schedule are tailored to the needs of each patient. Therapy services are provided 7AM to 5PM, Monday through Friday and on Saturdays as needed.
* Recreation therapy, clinical psychology, neuropsychology, and assistive technology services are available 5 days a week and are provided based on the needs of each patient.
* Each patient is assigned a Care Coordinator who acts as a liaison between patient, family/caregiver, rehabilitation professionals, and third party payers.
* Wake Forest Baptist Medical Center provides all ancillary services including, but not limited to, Diagnostic Imaging, Laboratory, Pharmacy, Spiritual Care, and Respiratory Therapy.
* Consulting physician services for other specialties are provided by Wake Forest Baptist, as needed.
* If services not available within the Wake Forest Baptist are needed, referrals or consultations are made for these services, which may include, but are not limited to: cognitive rehab, durable medical equipment, caregiver/family services, substance abuse counseling, vocational rehabilitation, rehab engineering, and driver’s assessment and education.

**Treatment Goals and Common Interventions**

The ultimate goal is to return each patient to the highest level of independence possible, and in most cases, to return patient to home. Specific treatment goals are individualized for each patient and may include:

* Maximizing function in:
	+ Mobility and balance
	+ Activities of Daily Living (eating, grooming, dressing, bathing)
	+ Communication and cognition
	+ Swallowing
	+ Bowel and bladder management
* Addressing sexuality and family issues
* Disability adjustment, counseling, and coping strategies
* Patient and family education for individualized needs
* Prevention, recognition, assessment, and treatment of conditions related to stroke and its complications, which may include:

|  |  |  |
| --- | --- | --- |
| * Angina
 | * Depression
 | * Central post-stroke pain syndrome
 |
| * Anxiety
 | * Diabetes mellitus
 | * Pressure ulcers
 |
| * Bladder dysfunction
 | * Dyslipidemia
 | * Recurrent Stroke
 |
| * Cardiac arrhythmias
 | * Dysphagia
 | * Sexual Dysfunction
 |
| * Sleep disturbances
 | * Emotional stability
 | * Complex regional pain syndrome
 |
| * Congestive Heart Failure
 | * Exercise intolerance
 | * Shoulder dysfunction
 |
| * Contracture
 | * Falls and injuries
 | * Orthostatic hypotension
 |
| * Seizure
 | * Fatigue
 | * Spasticity/abnormal muscle tone
 |
| * Dehydration
 | * Hypertension
 | * Thromboembolic disease
 |
| * Deconditioning
 | * Malnutrition
 | * Urinary tract infection
 |
| * Degenerative join disease
 | * Obesity
 | * Ventilatory insufficiency
 |
| * Dementia
 | * Pneumonia
 |  |

* Reducing risk factors for recurrent stroke, which may include:
	+ Hypertension
	+ Coronary disease
	+ Obesity
	+ Thromboembolic disease (blood clots)
	+ Diabetes mellitus
	+ High alcohol intake
	+ High cholesterol
* Recommending healthy living practices including, but not limited to, weight control and smoking cessation
* Optimizing community integration and life roles through community outings, recreation therapy and use of assistive technology
* Identifying and providing additional services for families/support systems (e.g., support groups)

**Specialized Technology**

The Stroke Rehab Program uses state-of-the-art procedures and technology for stroke care including:

* Bioness – Functional electrical stimulation
* Lite Gate – Partial weight-bearing gait therapy
* VitalStim – Swallowing therapy

**Demonstrated Excellence in Rehabilitation**

The Stroke Rehab Program has been awarded accreditation from the Commission on Accreditation of Rehabilitation Facilities. CARF Accreditation means that Wake Forest Baptist Medical Center’s Stroke Rehab Program:

* + - is committed to excellence in rehabilitative care
		- meets rigorous international standards of patient care and satisfaction
		- is committed to helping each patient achieve their individualized rehabilitation goals
		- constantly works to improve services and stays on the edge of rehabilitation techniques and technology
		- surpasses communication expectations with referral and payer sources

**Admission Criteria and Referrals**

Patients admitted to the Stroke Rehab Program must have realistic rehabilitation goals that reflect the potential for gaining independence or achieving a higher function in self-care activities and mobility. Additionally, a patient must:

* Be 13 years of age or older
* Require and be able and willing to participate in intensive physical, occupational and/or speech therapy (if indicated) at least 3 hours a day
* Have the need for more than one type of rehab therapy and have potential for functional improvement.
* Be medically appropriate for an inpatient hospital environment and have stable vital signs.
* Have a supportive social system and a defined, expected discharge destination to home
* Have a cognitive level of three or higher on the Rancho Los Amigos scale.
* Be able to breath without the help of a mechanical ventilator at all times.

Wake Forest Baptist Health accepts payment from all major private insurance plans, worker’s compensation, Medicare and Medicaid. The Program evaluates and verifies insurance coverage for each patient prior to admission. If the patient does not have insurance coverage for the Rehabilitation Program, the patient and/or family/caregiver will be notified and alternate payment plans or treatment options will be discussed. Any estimated financial responsibilities will be communicated to the patient and/or family.

The Program welcomes referrals from many sources, including, but not limited to, physicians, short term acute care hospitals, rehab hospitals, nursing facilities, long term acute care hospitals, and home health agencies. To make a referral, call (336) 713-8500 or (888) 605-9568.

For additional information about the program, call 336716-8454 or email Rehab4Life@wakehealth.edu.

The Rehabilitation Programs at Wake Forest Baptist Medical Center do not discriminate against individuals of varying age, disability, race/ethnicity, religion, gender, or sexual preference and strive to understand and the be sensitive to these characteristics and to patient-specific preferences.



**Stroke Rehab Program**

**Stroke Rehab Program Patients – Calendar Year 2017**

Patients in most recent year: **172**

Patients with Right Brain Strokes: 69

Patients with Left Brain Strokes: 64

Patient with Bilateral/No Paresis/Other: 39

58% were males.

42% were females.

Average Days in Program: 15

Therapy Intensity:

 3.5 Hours per day, 5 days per week

|  |  |
| --- | --- |
| **Age** **Group** | **Number of** **Patients** |
| 13-17 | 3 |
| 18-40 | 17 |
| 41-65 | 82 |
| 66-85 | 62 |
| 86-100 | 8 |

**Patient Outcomes – Calendar Year 2017**

Patients and family members work with the care team to set functional improvement goals. Function is measured, or scored, at admission, during the stay, and at discharge. The table to the left shows the percentage of patients who demonstrate functional improvement and the average percentage improvement.

The ability to discharge patients to their home is a key outcome and expectation for inpatient rehab programs. Wake Forest Baptist’s Stroke Rehab Program outperforms other programs in returning patients to home. In 2017, 84% of patients were discharged to home, compared to the national average of 77%. 4% of patients were discharged to their previous hospital setting, but often for a short period prior to returning to the Rehab Program. 11% of patients were discharged to long term care setting for continued rehab and/or nursing care.

|  |  |  |
| --- | --- | --- |
| **Functional** **Improvement in:** | **% Patients Who Have Improved Function between Admission & Discharge** | **Average Improvement Between Admission & Discharge** |
| Self-Care | 85% | 51% |
| Bowel and Bladder | 56% | 38% |
| Locomotion (Walking/Stairs) | 90% | 139% |
| Bed, Toilet, & Chair Transfers | 90% | 76% |
| Communication | 66% | 24% |
| Interaction/Memory/Problem SolvingSource: Uniform Data Systems for Medical Rehabilitation  | 62% | 24% |

**Patient/Family Satisfaction**

In 2017, 91% of Stroke Program participants completed a survey about their likelihood of recommending the Program to friends and family members. 95% gave a rating of 9 or 10 on a 10 point scale, indicating they are extremely likely to recommend the program.

**Resources for Your Continued Recovery**

There are many other services within our health system and in your community that may assist in your recovery. The next two pages introduce some of the services and resources available through our organization, the local community, or national organizations. We encourage you to call or visit the website for these organizations. However, please do not hesitate to ask us for additional information on these services or other services in your community.

**The NC Stroke Association’s (NCSA)** mission is to reduce the incidence and impact of stroke through relationships and collaborations to facilitate screening, education, outcome assessments, and advocacy.NCSA and **the American Stroke Association** provide a wealth of stroke prevention and caregiver resources. The **National Institutes of Neurological Disorders and Stroke** provides a wealth of information on treatment, prognosis, research, and post-stroke rehabilitation.

www.ninds.nih.gov/disorders/stroke/stroke.htm

**Peer support services** are designed to provide individuals and their families with an opportunity to meet and talk with others who are successfully coping with stroke. Peer Support services can be provided in informal one-on-one sessions or in small groups.

*During the Rehab stay,* WFBH may be able to offer a one-on-one session upon request. To learn more, please notify your care coordinator.

*After discharge,* the following **local support groups** are available.

*Wake Forest Baptist Health Stroke Support Group*, Contact Rayetta Johnson

336.716.3011

*Guilford County Stroke Support Group*, Contact Jane Edwards

336.832.4000

*Aphasia Support Group,* Contact Beth Crady

336.723.1272

**Driver Rehabilitation Services** include clinical assessments of a person’s visual, perceptual, cognitive, physical, and behavioral abilities as it relates to safe and independent driving due to aging, an illness or injury. Two local providers of these services are:

Driver Rehabilitation Services, P.A. Wake Forest Baptist Medical Center- Outpatient NeuroRehab

888.888.0039or 336.697.7841  336.716-8400

www.info@driver-rehab.com

The **NC Center for Cognitive Rehabilitation, LLC is** devoted to helping individuals who have cognitive impairments as a result of stroke or head injury. Cognitive rehab is functionally based and individualized to each person’s specific goals. There is an emphasis on community integration and return to work. For more information:
Contacts: Robin Alexander Embry

 336.283.9197

WFBH’s **Club Independence (Club I)** is an interactive Day Recreation Therapy Program providing education, recreation, and overall health and wellness opportunities for individuals with disabling conditions, including stroke.  **Club I** is the only program of its kind in the Triad and one of only two in North Carolina. Led by licensed recreation therapists, **Club I** addresses ways for members to enhance their quality of life and assists them in returning to the community and to recreational activities that they once enjoyed. **Club I** meets on Wednesdays from 9:00am to 4:00pm at Medical Plaza Miller. Members must be 18 or older and independent with their activities of daily living and medical management. For more information:

336.716.8007

 www.wakehealth.edu/Recreation-Therapy/Club-Independence.htm

 **Resources for Your Continued Recovery**

Wake Forest Baptist Health’s **Assistive Technology Center** is a partnership with the North Carolina Assistive Technology Program (NCATP) and is a demonstration center for assistive technology devices (AT).  Assistive Technology or “AT” is any equipment or device that a person with a disability uses to make every day living easier, to be more productive in the workplace or to be more independent. Therapists, consumers/patients, and family members can visit the center at Medical Plaza Miller to look at devices and try them out.  Many of the devices can be loaned out for short periods of time. For more information:

336.716.8030 (Paul Eklund)

 www.wakehealth.edu/Recreation-Therapy/Assistive-Technology.htm

The **WFBH Medical Fitness Program** offers diagnosis-specific, small group exercise classes designed for anyone who has been discharged from outpatient rehab but is not ready to exercise independently. Evaluation by a physical therapist or a physician referral is required for admission to the program. Classes are offered at Medical Plaza Miller and Davie Medical Center. For more information:

 336.716.8402

The **Millennium Team Stroke Recovery Center** at the Kernersville YMCA provides fitness training to stroke survivors to help regain strength, balance, and control. For more information:

336.406.6701 (Ed Vankuren)

WFBH offers ***MyWakeHealth,*** a patient portal that gives patients unprecedented access to their health information, without the unnecessary burden of waiting. *MyWakeHealth* allows you to get answers to your medical questions from the comfort your own home; schedule your next appointment or view details of your past and upcoming appointments; and access test results. For more information:

[www.mywakehealth.com](http://www.mywakehealth.com)

**BestHealth** is the Piedmont Triad’s trusted source for hands-on health knowledge, classes and screenings.

BestHealth is presented by Wake Forest Baptist Medical Center, one of America’s top ranked hospitals. An optional membership is also available to individuals who wants to take a more active role in improving or managing their health. For more information:

336.713.BEST (336.713.2378)

www.wakehealth.edu/BestHealth

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The Inpatient Rehabilitation Programs are pleased to offer a **Rehabilitation** **Resource Center** on the Comprehensive Inpatient Rehabilitation Unit. Please visit the center and let us know what you think. If you need assistance finding additional resources in your community:

336.716.8454 (Karen Lawrence)

Email: Rehab4Life@wakehealth.edu.

**Map and Driving Directions to the Sticht Center**



The Rehabilitation Programs are located on the 3rd floor of the Sticht Center. Park in Patient/Visitor Deck A.

**From Interstate 40 East:** Take Business 40 toward Winston Salem. Exit Cloverdale Avenue. At the bottom of the

exit ramp, continue straight through the traffic light onto Medical Center Boulevard. Proceed up the hill and around the curve. Turn left into the Main Entrance to the Medical Center. Turn into the first drive on your left. And then right to park in Deck A.

**From Interstate 40 West**: Take Business 40 toward Winston Salem. Exit Cloverdale Avenue. At the bottom of the

exit ramp, turn right on Cloverdale Avenue. At the first traffic light, turn left onto Medical Center Boulevard and proceed up the hill and around the curve. Turn left into the Main Entrance to the Medical Center. Turn into the first drive on your left, and then right to park in Deck A.