



The Post-Acute Continuum for Stroke Care

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A Guide for Patients and Families from the
American Academy of Physical Medicine and Rehabilitation (AAPM&R)

Approximately 55% of stroke patients need additional inpatient care after their acute hospital stay, in order to maximize recovery and return home. In the United States there are several different levels of post-acute inpatient and outpatient care for people who have had a stroke.

These levels vary in several ways:

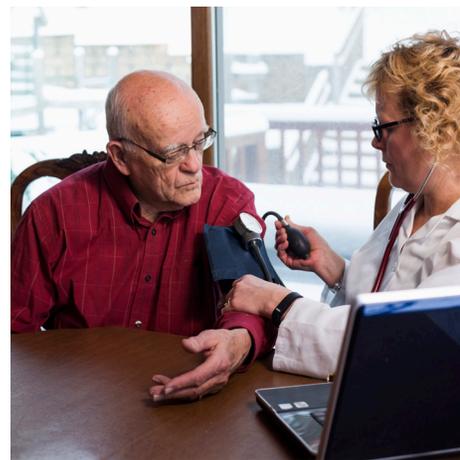
- The intensity of rehabilitation therapy.
- The extent of nursing and physician staffing.
- The availability of supporting services.
- The expectations of length of stay.

The best path to stroke recovery for an individual patient is not always clear. In addition to the differences above, factors such as geography, facility characteristics, insurance coverage, and patient and family preferences are important in the selection process. It is helpful for patients and families to understand the different levels of care in order to make choices that best meet the needs of the individual patient.

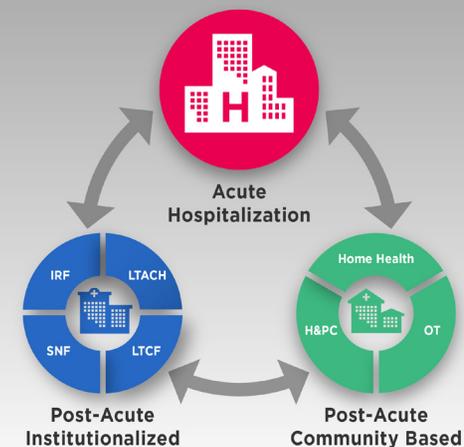
PM&R physicians, also known as physiatrists, play a significant role in stroke rehabilitation at all of these levels of care.

What is a Physiatrist?

A physiatrist is a physician who specializes in Physical Medicine and Rehabilitation. Physiatrists treat a wide variety of medical conditions affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles, and tendons. Physiatrists utilize cutting edge as well as time tested treatments to maximize function and quality of life.



Management of Stroke Rehabilitation



What are the levels of post-acute care for patients after stroke?

1. Inpatient Rehabilitation Facility

Defined:

Inpatient Rehabilitation Facilities (IRFs) are hospitals that specialize in intensive rehabilitation for a variety of conditions, including stroke. They may be freestanding hospitals or rehabilitation units within acute care hospitals.

IRFs are the gold standard for rehabilitation care in the United States. They provide the most intensive therapy and the greatest variety of rehabilitation services for patients of all levels of post-acute care. About 25% of patients in IRFs are there because of a stroke. The American Stroke Association recently published stroke rehabilitation guidelines which recommend that stroke survivors who qualify for and have access to IRF care should receive treatment at this level of care. (Winstein, C, et al. Stroke, April, 2016)

Who Will Benefit from this Level of Care?

Patients with significant neurologic deficits from the stroke, who can engage in the intensive rehabilitation therapy program and have moderate medical management needs, are ideal candidates for this level of care. Patients need to be medically stable and strong enough to participate in 3 hours or more of therapy per day, at least 5 days per week. Patients who can benefit from this level of care can be expected to make significant gains in function with a few weeks of intensive therapy in this setting. The average length of stay for stroke patients in IRFs is a little over 2 weeks (15.5 days for Medicare patients 2005-2009). Nationwide, 70% of stroke patients are well enough to go home after their IRF stay.

The Team:

The following team provides the patient's rehabilitation care, and meets at least weekly to discuss his/her progress and goals.

- Physiatrist (team lead)
- Rehabilitation nurse
- Social worker or case manager
- Licensed therapist from each therapy discipline (i.e., Physical Therapy, Occupational Therapy, Speech Therapy)
- Medical and mental health consultants as needed

The Physiatrist's Role in Your Care:

During your stay, the physiatrist directs the rehabilitation team and addresses your needs in the following areas:

- Medical management
- Bowel/bladder management
- Skin integrity
- Nutrition/swallowing
- Mobility
- Self-care
- Cognition and communication
- Pain and spasticity management
- Adjustment to disability
- Orthotics
- Assistive devices
- Discharge planning
- Communication with family members and other treating physicians

Regulatory Requirements for this Level of Care:

- Medicare requires that a physiatrist approve each patient for IRF level of care prior to admission, perform a Post Admission Physician Assessment within 24 hours, and complete the patient's Plan of Care within 4 days.
- The patient must complete 3 hours of rehabilitation therapy per day at least 5 days/week, including Physical Therapy (PT), Occupational Therapy (OT), Speech Language Pathology treatment (SLP), and/or orthotic and prosthetic services.
- A physiatrist must visit the patient a minimum of 3 times per week to provide individual treatment and assure progression of the patient's rehabilitation program.



2. Long-Term Acute Care Hospital

Defined:

Long-Term Acute Care Hospitals (LTACHs) are hospitals that take care of medically complex patients who require longer inpatient recuperative stays. They provide rehabilitative therapies, though their primary focus is on medical and nursing care of complex conditions.

Who Will Benefit from this Level of Care?

LTACHs are appropriate for stroke patients for whom continuing complex medical care is the first priority. Medically fragile patients on ventilators, those with wounds requiring complex care, those needing dialysis, intravenous chemotherapy, or tracheostomy management, are examples of patients who will benefit most from this level of care. Rehabilitation therapies are provided according to the patient's tolerance.

The Team:

The following care team works together to provide the patient's care and holds weekly meetings to discuss progression and goals.

- Internist or medical subspecialist (team lead)
- Physiatrist (consultant)
- Rehabilitation nurse
- Social worker or case manager
- Consultants in Psychiatry, Pulmonary, Cardiology, Psychiatry, Endocrinology and other medical and surgical specialties, as needed



The Physiatrist's Role in Your Care:

Physiatrists typically act as consultants in the LTACH setting, and assist in patient management in the following areas:

- Cognition and communication
- Dysphagia/nutrition
- Range of motion and joint integrity
- Musculoskeletal complications of stroke and immobility
- Mobility and Self Care training
- Bowel and bladder management
- Wound care
- Spasticity management
- Pain management
- Adjustment to disability and mood disorder management
- Durable Medical Equipment (DME), orthotics, and assistive devices evaluation and prescription
- Funding for care needs
- Discharge planning
- Communication with other treating physicians

Regulatory Requirements:

- Medicare requires the Length of Stay (LOS) must be greater than 25 days on average, reflecting the expectations of medical complexity.
 - » NOTE: "Medical complexity" may include the need for respiratory therapy due to ventilator or tracheostomy dependence, parenteral feeding of all types, dialysis, complex wound care, IV chemotherapy, and/or intensive mental health services.
- In addition, a 3-day Intensive Care Unit Length of Stay at the acute hospital or 96 hours of mechanical ventilation on a respirator is required.
- There is no requirement for the amount of rehabilitation therapy, at this level of care.

3. Skilled Nursing Facility

Defined:

There are 15,000 Skilled Nursing Facilities (SNFs) in the United States. SNFs provide skilled nursing and rehabilitation care at a less intensive and more variable level than IRFs. SNFs provide standard physical therapy (PT), occupational therapy (OT), and speech language pathology (SLP) services with basic therapy equipment. They provide skilled nursing services. Physician visits are less frequent than at the hospital levels of post-acute care and vary from facility to facility. In addition, they provide activity programs for residents. Patients admitted to a SNF after a stroke usually receive less intensive rehabilitation therapy than at an IRF. On the other hand, they stay longer in the SNF setting. The average Length of Stay (LOS) for stroke rehabilitation in a SNF is 32.1 days.

Who Will Benefit from this Level of Care?

Stroke patients who need inpatient rehabilitation but are not able to tolerate or engage in an intensive 3 hours/day program, and whose medical and nursing needs can be met with the level of nursing and physician resources described are best suited for skilled nursing facility level of care.

The Care Team:

While there is no requirement for regular team meetings, staff at the SNF are required to create and follow a Care Plan and a Discharge Plan for each resident.

- Registered Nurse
- Nurses' aides and licensed practical nurses
- Physicians, Nurse Practitioners, and Physician's Assistants
- Medical/surgical specialists are typically consulted by sending the patient to an outpatient visit from the SNF



The Physiatrist's Role in Your Care:

Physiatrists may function as attending physicians, addressing all areas of patient care, or as consultants, addressing rehabilitation issues, including:

- Spasticity/hypertonicity management
- Pain management
- Orthotics and assistive devices
- Management of musculoskeletal complications of stroke
- Education and training for patient and caregivers
- Consultant to rehabilitation therapists and nursing staff
- Adjustment to disability and mood disorders
- Bowel/bladder
- Skin integrity
- Assistance with community discharge planning

Regulatory Requirements:

- Medicare requires a Registered Nurse (RN) to be onsite 8 hours a day, 7 days a week.
- A physician must visit every 30 days for the first 3 months of stay, and 60 days thereafter. Many SNFs provide more frequent physician visits than this minimum requirement.
- Medicare patients must have had a 3-day qualifying stay in an acute hospital within the preceding 30 days and need skilled nursing and/or therapy services daily in order to qualify for this level of care.
- There is no requirement for a specific number of hours of therapies per day, though patients there for skilled services such as rehabilitative therapies must receive them daily.

4. Outpatient Rehabilitation

Defined:

Outpatient therapy services are provided in the outpatient departments of acute care and rehabilitation hospitals, in rehabilitation clinics and doctors' offices.

Outpatient rehabilitation centers associated with rehabilitation hospitals often have state-of-the-art equipment and resources to offer a wide variety of rehabilitation interventions. In addition to standard physical therapy (PT), occupational therapy (OT), and speech language pathology (SLP) services, they may offer pool therapy, driving evaluation, orthotic and adaptive technology services, wheelchair clinic, vocational rehabilitation consultation, electrical stimulation, robotic, and virtual reality therapy interventions. Therapy frequency is usually 1-3 times per week. In some cases, there is an active clinical research program with opportunities for patients to participate.

Who Will Benefit from this Level of Care?

Patients ready for this level of care are those able to be transported to the clinic for treatments 1-3 times per week, and who would benefit from a focus on higher level mobility and instrumental ADLS skills such as driving that are not addressed in home therapy.

The Team:

In addition to the treating physical occupational and speech therapists, physicians usually see patients in the outpatient clinics of a rehabilitation hospital, and are available, along with nurses, to outpatients on the site in case of emergency.

Free standing therapy centers and doctors' offices are likely to have some or all of the resources described above, and what is available varies from place to place.

The Physiatrist's Role in Your Care:

The physiatrist orders and directs the therapy program, attending team meetings and providing consultation to the therapists about specific therapy modalities as needed. The physiatrist:

- Prescribes orthotics and assistive devices.
- Provides post-stroke pain and spasticity management services.
- Recommends consultation with driving, vocational rehabilitation, neuropsychology, and other specialists as needed.
- Maintains appropriate communication with the patient's primary care physician and other providers.

The physiatrist may be called upon to manage long term musculoskeletal sequelae of stroke, including injuries from overuse of the unaffected extremities and altered body mechanics due to the stroke, and injuries from falls. Physiatrists also often fulfill the role of Outpatient Medical Director, coordinating and supervising the physicians seeing patients at the outpatient site, assuring regulatory compliance with medical practice standards, and leading quality improvement activities.

Regulatory Requirements:

- There is a cap on Medicare expenditures for physical therapy (PT) and speech language pathology (SLP) services, and a second cap for occupational therapy (OT) services each year.
- Medicare will pay 80% of the cost of therapies up to \$1,960 per year in 2016, though an exceptions process allows for more visits when medically necessary.



5. Home Care

Defined:

Rehabilitation therapy and nursing services can be provided in a patient's home by a home care agency or visiting nurse service. A doctor sends orders for therapy to the agency, which then visits the patient at home to assess their need for skilled services and provides those services.

Home care agencies provide standard physical therapy (PT), occupational therapy (OT), and speech language pathology (SLP), Registered Nurse (RN), Home Health Aide, medical social services, and necessary medical supplies, excluding durable medical equipment such as wheelchairs. The intensity of therapy services is usually 1-3 times per week for each therapy. RN visits may be 1-7 times per week for wound care, medication management, bladder catheterization, or other services.

Home care services are short term. Medicare defines a maximum 60 days for an episode of home care, and patients typically receive these services for a few weeks after hospitalization.

Who Will Benefit from this Level of Care?

The patient must be unable to leave the home readily due to physical and/or mental incapacity, or lack of transportation.

The Team:

- Referring Physician (physiatrist, primary care doctor)
- Registered Nurse (visits home)



The Physiatrist's Role in Your Care:

Physiatrists are often the referring physicians, ordering the therapy services and overseeing the home care program. In that role, while monitoring the patient's response during office visits and through communication with home care personnel, they may help with any of the following areas:

- Cognition/communication
- Bowel/bladder
- Skin integrity
- Range of motion and joint integrity
- Musculoskeletal complications of stroke and deconditioning
- Mobility and Self Care training
- Spasticity management
- Medications
- Dysphagia/nutrition
- Pain management
- Durable Medical Equipment (DME), orthotics, assistive devices
- Communication with other treating physicians

Regulatory Requirements:

For services at home to be covered by Medicare, the patient must be certified as 'home bound' by the referring physician. This means that the patient must be unable to leave the home readily due to physical and/or mental incapacity, or lack of transportation.

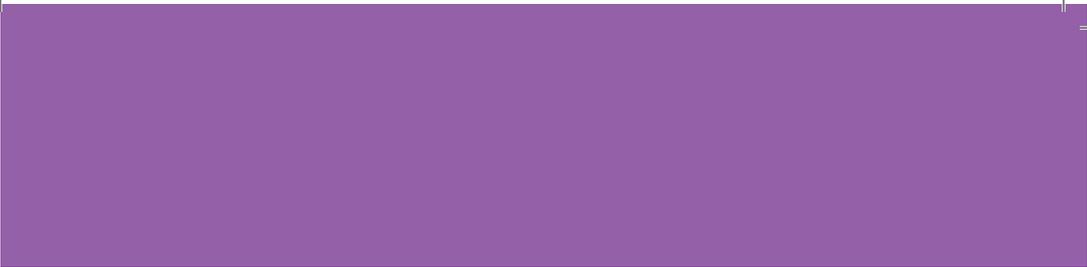
About AAPM&R

The American Academy of Physical Medicine and Rehabilitation (AAPM&R) is the primary medical society representing more than 10,000 physicians who are specialists in physical medicine and rehabilitation (PM&R).

AAPM&R is thankful for the clinical expertise of the physiatrists who helped create this guide.

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After a stroke, the path of care isn't always clear.
Read inside to learn about your options and
the role a physiatrists plays in your stroke
rehabilitation care.

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