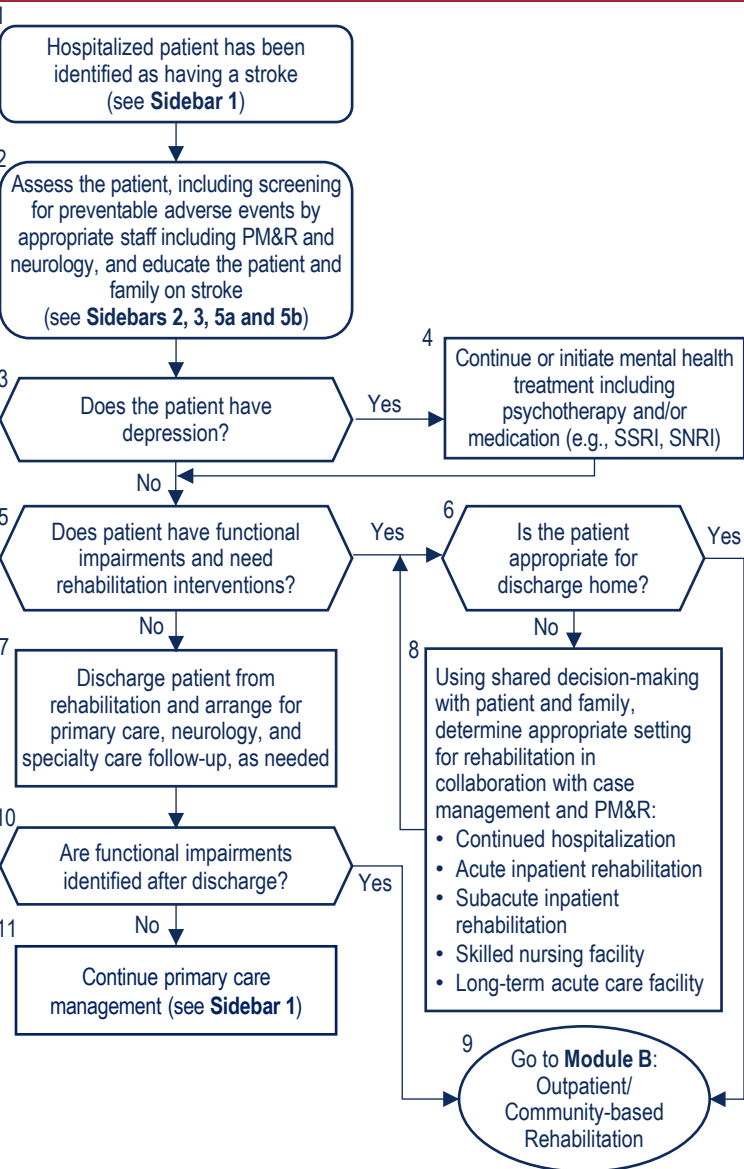


Management of Stroke Rehabilitation



Module A: Rehabilitation Disposition of the Inpatient with Stroke



Sidebar 1: Essential Guidelines for the Medical Management of Stroke

- 2019 Update to the 2018 AHA/ASA Guidelines for the Early Management of Patients with Acute Ischemic Stroke
- 2021 AHA/ASA Guidelines for the Prevention of Stroke in Patients with Stroke and Transient Ischemic Attack
- 2022 AHA/ASA Guidelines for the Management of Spontaneous Intracerebral Hemorrhage

Sidebar 2: Assessment of Impairments and Disabilities

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|---|---|
| <b>Assessment of impairments</b> <ul style="list-style-type: none"><li>• Auditory/hearing</li><li>• Bowel and bladder</li><li>• Cognition</li><li>• Communication</li><li>• Emotion tolerance/aerobic capacity</li><li>• Inattention/neglect</li><li>• Motor/mobility/balance</li><li>• Swallowing and nutrition</li><li>• Tactile/touch/somatosensory</li><li>• Vision and formal visual fields</li><li>• Vestibular</li></ul> | <b>Assessment of barriers to participation in therapy</b> <ul style="list-style-type: none"><li>• Cognitive impairment</li><li>• Communication impairment</li><li>• Fatigue and sleep</li><li>• Medical conditions</li><li>• Mental health (e.g., depression)</li><li>• Motivation</li><li>• Pain</li><li>• Social determinants of health (e.g., financial, employment, transportation)</li></ul> |
| <b>Assessment of support system</b> <ul style="list-style-type: none"><li>• Family, caregivers, community</li><li>• Military leadership/structure, if applicable</li></ul>  | <b>Assessment of activity and function</b> <ul style="list-style-type: none"><li>• ADLs (e.g., feeding, dressing, grooming) and IADLs (e.g., finances, shopping)</li><li>• Driving</li><li>• Meaningful roles (e.g., parent, spouse)</li><li>• Return to work/duty or school</li><li>• Sexual function and intimacy</li></ul>   |

Sidebar 4: Considerations for Outpatient/Community-based Rehabilitation Services

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|---|--|
| <ul style="list-style-type: none"><li>• Current functional status and endurance level</li><li>• Family and caregiver support</li><li>• Home assessment for safety</li></ul> | <ul style="list-style-type: none"><li>• Motivation and preferences</li><li>• Necessary equipment</li><li>• Resources, availability, and eligibility</li><li>• Transportation</li></ul> |
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Sidebar 3: Stroke Education Topics

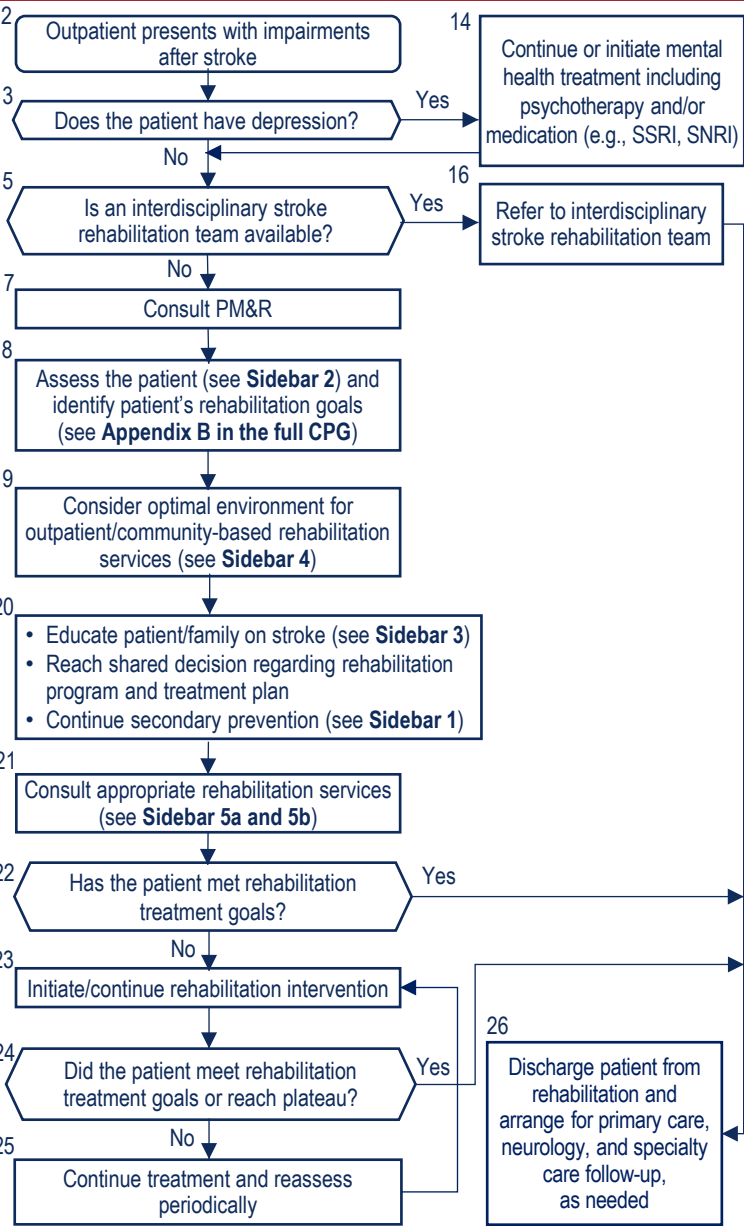
- Stroke signs and symptoms – BE FAST**
- Balance – Sudden difficulty with balance or coordination, dizziness, vertigo
  - Eyes – Sudden blurred, double, or loss of vision in one or both eyes
  - Face – Sudden facial droop/weakness on one side of the face
  - Arm – Sudden weakness in one arm
  - Speech – Slurred speech, unable to speak, or difficulty understanding speech
  - Time – If any of these symptoms occur, call 911. Time is critical for stroke.
- Common causes of stroke**
- Ischemic stroke (80-90% of all strokes)
    - ◆ Heart conditions, such as atrial fibrillation
    - ◆ Atherosclerosis of the large arteries in the neck and brain
    - ◆ Small vessel disease
    - ◆ ~30% of ischemic strokes are not found to have a clear cause (cryptogenic)
  - Hemorrhagic stroke (10-20% of all strokes)
    - ◆ High blood pressure (hypertension)
    - ◆ Vascular malformations (aneurysm, cavernous malformation, fistula)
    - ◆ Amyloid angiopathy
- Risk factors for stroke**
- High blood pressure (hypertension)
  - High blood sugar (diabetes mellitus)
  - High cholesterol (hyperlipidemia)
  - Heart conditions (atrial fibrillation, heart failure)
  - Tobacco/nicotine (smoking, vaping, chewing)
  - History of previous stroke
  - Age, ethnicity, sex, race, socioeconomic status
- Other Topics**
- Nutrition
  - Physical activity and falls prevention
  - Continuum of care options/follow-up after discharge
  - Inpatient rehabilitation
  - Outpatient rehabilitation
  - Therapy at home
  - Adjustment and coping after stroke
  - Primary care follow-up

Abbreviations: AHA: American Heart Association; ASA: American Stroke Association; ADLs: activities of daily living; IADLs: instrumental activities of daily living

Recommendations can be accessed in the full guideline. Available at: <https://www.healthquality.va.gov/>.



Module B: Outpatient/Community-Based Rehabilitation



Sidebar 5a: Resources for Management of Post-Stroke Impairments/Needs*	
Consultants/Referrals	Impairment/Need
Behavioral and mental health	<ul style="list-style-type: none"><li>• Adjustment and coping</li><li>• Behavioral smoking cessation</li><li>• Cognition</li><li>• Emotion and behavior</li><li>• Family/caregiver support</li><li>• Pain</li><li>• Sexual function and intimacy</li></ul>
Case management (social work and/or nursing)	<ul style="list-style-type: none"><li>• Community resources</li><li>• Emotion and behavior</li><li>• Family/caregiver support</li><li>• Financial resources</li><li>• Risk for abuse/neglect (e.g., emotional, financial exploitation, or physical)</li></ul>
Dietetics	<ul style="list-style-type: none"><li>• Healthy eating and nutritional needs</li></ul>
Neurology	<ul style="list-style-type: none"><li>• Medication management</li><li>• Optimization of secondary stroke prevention</li><li>• Spasticity (medical management)</li></ul>
Nursing	<ul style="list-style-type: none"><li>• Bowel and bladder function</li><li>• Medication administration</li><li>• Patient and family education</li><li>• Self-management skills, ADLs, IADLs</li><li>• Skin care</li></ul>
Occupational therapy	<ul style="list-style-type: none"><li>• Cognition</li><li>• Driving</li><li>• Durable medical equipment recommendations</li><li>• Home safety</li><li>• Self-management skills, ADLs, IADLs</li><li>• Sexual function and intimacy</li><li>• Spasticity</li><li>• Strength</li><li>• Vision/vision perception</li></ul>
Ophthalmology	<ul style="list-style-type: none"><li>• Eye care</li><li>• Strabismus assessment and procedures</li></ul>
Optometry/visual rehabilitation	<ul style="list-style-type: none"><li>• Eye care</li><li>• Functional eye exam</li><li>• Non-operative strabismus management</li><li>• Strabismus assessment and procedures</li><li>• Visual field cut/blind spot/scotoma</li></ul>

Sidebar 5a: Resources for Management of Post-Stroke Impairments/Needs* (cont.)	
Consultants/Referrals	Impairment/Need
Physical Medicine and Rehabilitation (e.g., physiatry)	<ul style="list-style-type: none"><li>• Medication administration</li><li>• Pain (medical management)</li><li>• Prevention of post-stroke complications</li><li>• Rehabilitation management, oversight, and direction including assistance with return to work/duty or school</li><li>• Sexual function and intimacy</li><li>• Spasticity (medical management)</li></ul>
Physical therapy	<ul style="list-style-type: none"><li>• Balance disorders and dizziness</li><li>• Durable medical equipment recommendations</li><li>• Exercise recommendations/aerobic reconditioning</li><li>• Home safety</li><li>• Motor/mobility problems</li><li>• Pain</li><li>• Sexual function and intimacy</li><li>• Spasticity</li><li>• Strength</li><li>• Self-management skills, ADLs, IADLs</li></ul>
Primary care	<ul style="list-style-type: none"><li>• Management of common stroke risk factors</li><li>• Hypertension</li><li>• Diabetes mellitus</li><li>• Hyperlipidemia</li><li>• Tobacco use</li><li>• Medication management</li><li>• Management of comorbidities</li></ul>
Recreation therapy	<ul style="list-style-type: none"><li>• Adaptive sports</li><li>• Community re-entry</li><li>• Functional cognition</li><li>• Leisure/recreation participation</li><li>• Self-management skills, ADLs, IADLs</li></ul>
Speech-language pathology	<ul style="list-style-type: none"><li>• Cognition</li><li>• Communication</li><li>• Self-management skills, ADLs, IADLs</li><li>• Swallowing</li></ul>
Vocational rehabilitation	<ul style="list-style-type: none"><li>• Return to work/duty or school</li></ul>

\*Some impairments/needs may have multiple consultants/referrals depending on various factors (e.g., severity).

Abbreviations: ADLs: activities of daily living; IADLs: instrumental activities of daily living