Implementation of AHA/ASA Guidelines for ADULT STROKE REHABILITATION & RECOVERY

Moving From Paper to Practice
INTRODUCTION
THE GUIDELINE’S AUTHORS

A GUIDELINE FOR HEALTHCARE PROFESSIONALS FROM THE
AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION

Guidelines Recommendations
INTRODUCTION

A GUIDELINE FOR HEALTHCARE PROFESSIONALS FROM THE AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION

- Number of individuals affected by stroke in the US annually: 800,000
- Decline in the relative rate of stroke deaths from 2000 - 2010: 36%
- Survivors who receive rehab services after hospitalization: 2/3s

This set of practice guidelines will present the most current recommendations in stroke rehabilitation, based on evidence and consensus opinion.
### Rating of the Evidence: Classification of Recommendations and Levels of Evidence

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<thead>
<tr>
<th>LEVEL A</th>
<th>LEVEL B</th>
<th>LEVEL C</th>
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<td><strong>CLASS I</strong></td>
<td><strong>CLASS IIA</strong></td>
<td><strong>CLASS IIb</strong></td>
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<td><strong>BENEFIT + = RISK</strong></td>
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<td><strong>CLASS III NO BENEFIT OR CLASS IIIHARM</strong></td>
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#### Estimate of Certainty (Precision) of Treatment Effect

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Stroke Rehabilitation Guidelines: By The Numbers

5/4/16
Date Published

18
Authors

72
Pages in Published Form

944
References

227
Specific Recommendations

78,000
Downloads as of August 2017
Categories of RECOMMENDATIONS
THE REHABILITATION PROGRAM

Each year, stroke affects nearly 800,000 people in the U.S. More than 2/3 of stroke survivors receive rehabilitation services after hospitalization. This need for effective stroke rehabilitation is an essential part of stroke care. Several key recommendations from the 2016 Guidelines for Adult Stroke Rehabilitation and Recovery on post-stroke rehabilitation care are presented in this deck.

- Organization of Post-Stroke Rehab Care
- Rehab Intervention in the Inpatient Setting
Residual deficits from a stroke include reduced mobility, cognitive impairment and emotional instability. These in turn lead to a variety of comorbidities, among the most common are skin breakdown, contractures, venous thrombosis, excretory incontinence, falls, pain syndromes and depression.

- Prevention of Skin Breakdown and Contractures
- Prevention of Deep Venous Thrombosis in Ischemic Stroke Patients
- Treatment of Bowel and Bladder Incontinence
- Assessment, Prevention and Treatment of Hemiplegic Shoulder Pain
- Prevention of Falls
- Post-Stroke Depression Including Emotional and Behavioral State
- Pharmacological Therapy
Multiple areas of function are part of a complete post-stroke patient assessment. These include motor impairment, including ADL and IADL; communication, both expressive and receptive; dysphagia; cognition; memory and dysfunction of the special senses.

- ADL, IADL and Disability Measurement
- Assessment of Communication Impairment
- Dysphagia Screening
Categories of Recommendations

Sensorimotor Impairments and Activities

Sensorimotor deficits affect nutrition, communication, cognition, memory, vision and gross and fine movement and coordination.

- Dysphagia Management and Nutritional Support
- Non-pharmacological Therapies for Cognitive Impairment and Memory
- Cognitive-Communication Disorders
- Aphasia
- Motor Speech Disorder: Dysarthria and Apraxia
- Spasticity
- Balance and Ataxia
- Mobility
- Eye Movement Deficits
- Upper Extremity Activity
- Deconditioning and Fitness
A great deal of information must be transmitted in tact from one treatment setting to the next. Accuracy and completeness are necessary to insure continuity of care. In addition, new areas of concern appear, such as family and caregiver support, community resources for recreation and leisure activities, sexual function and driving.

- Ensuring Medical and Rehab Continuity Through the Rehab Process and Into the Community
- Social and Family Caregiver Support
- Referral to Community Resources
- Rehab in the Community
- Recreational and Leisure Activity
- Sexual Function
- Driving
THE REHABILITATION PROGRAM: AN IN-DEPTH REVIEW

REHABILITATION INTERVENTIONS IN THE IN-PATIENT SETTING

• Unfortunately, most large randomized clinical trials in stroke recovery and rehab have focused on the chronic recovery phase. Studies on interventions in the acute rehab phase are generally small and more limited.

• **Timing** and **intensity** of acute rehab are important issues, but remain controversial.

  *Example: Early mobilization after stroke -- recommended in many practice guidelines, but one meta-analysis in 2009 had insufficient evidence to support or refute its efficacy, and another randomized controlled trial (AVERT) showed high dose mobilization within 24 hours of stroke was detrimental to achieving a favorable outcome at 3 mos.*

• **Stroke survivors should receive rehab at an intensity commensurate with anticipated benefit and tolerance.** *(Class I, LOE B)*

• **High dose, very early mobilization within 24 hours of stroke onset can reduce the odds of a favorable outcome at 3 months and is not recommended.** *(Class III, LOE A)*
Ideally, the team has the following components:

- Physician-leader(s) trained in Physical Medicine and Rehabilitation (physiatry) or trained Neurologists
- Rehabilitation nursing
- Physical therapy
- Occupational therapy
- Speech and language therapy
- Social work
- Psychology
- Psychiatry
- Counselors

**THE REHABILITATION PROGRAM: AN IN-DEPTH REVIEW**

**ORGANIZATION OF POST-STROKE REHABILITATION CARE: SETTINGS**

**INPATIENT REHABILITATION FACILITIES (IRF)**

*The most intense, 24/7 hospital-level care*
- For patients likely to return to the community, rather than a SNF or long-care facility.
- CMS regulations generally specify providing at least 3 hours/day of therapy, at least 5 days/week.

**SKILLED NURSING FACILITIES (SNFs)**

- For patients requiring skilled nursing service to maintain or prevent deterioration.
- CMS regulations generally specify RNs on site a minimum of 8 hours/day No requirement for daily supervision by a physician. Therapy typically provided 0.5-1.5 hours/day.
- Medicare will generally cover up to 100 days in a SNF.
- Not all SNF’s are the same in terms of hours of care.

**Nursing Homes**

- Long-term residential care for individuals unable to live in the community.
- Longer term care generally paid out of pocket, by long-term insurance, or through the Medicaid program.

**LONG-TERM ACUTE CARE HOSPITALS**

- Extended care to stroke patients with complex medical needs due to a combination of acute and chronic conditions. Average LOS 25+ days.

**HOME**

- Provided by Home Health Care Agencies or in outpatient clinics.
Major changes in Medicare reimbursement policies since the 1990s have dramatically impacted utilization patterns. Currently, ~70% of Medicare beneficiaries discharged for acute stroke use Medicare-covered post-acute services.

Data strongly suggests that there are benefits to starting rehab as soon as the patient is ready and can tolerate it. Prior to discharge from the hospital, all patients should undergo a formal assessment of the patient’s rehabilitation needs.

Multiple transitions in care are typical for stroke survivors, and pose particular challenges to maintain continuity of care and avoid lapses in the rehab program.

The 1st setting following acute hospitalization:
- SNF (32%)
- IRF (22%)
- Home Health (15%)

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• Stroke patients who are candidates for post-acute rehab should receive organized, coordinated, inter-professional care (Class I, LOE A)

• Stroke survivors who qualify for and have access to IRF care should receive treatment in an IRF in preference to a SNF (Class I, LOE B)

• Organized community-based and coordinated inter-professional rehab is recommended in the outpatient and/or home-based settings (Class I, LOE C)

• Early Supported Discharge (ESD) services may be reasonable for people with mild to moderate disability (Class IIb, LOE B)
What does the “3 hours of therapy” required for IRF participation really mean?

- Includes work on activities of daily living (ADL’s) with an Occupational Therapist, such as dressing, brushing teeth
- May include speech therapy
- Does not mean 3 hours of aerobic exercise in the gym!

Who is appropriate for SNF (subacute) rehab?

- Unable to tolerate intensive rehabilitation (i.e. more than 3 hours a day)
- Don’t require an intensive rehabilitation program
- Lack geographic access to IRF care
- Have completed a course of rehabilitation in an IRF, but unable to return directly home.
Bladder management:
✓ Assess pre-stroke urological issues and remove the foley catheter within 24 hours *(Class I, LOE B)*
✓ Cognition plays a part and prompted voiding and pelvic floor muscle training may be reasonable to try *(Class IIa, LOE B)*

Bowel management:
✓ No evidence stronger than IIb: Assess prior bowel patterns *(Class IIb, LOE C)*

Between the lines:
We need to determine if the incontinence is truly neurogenic or a cognitive attention related issue. At this time, we should use best practices for adult incontinence and study what works best in the stroke patient.

We have a need for research – specifically related to stroke patients.
Follow up care – what the follow up includes:

- Include the family or support in any training/education. *(Class IIb, LOE A)*
  - This is a IIb level of evidence, but we would all agree this is very important.
- Acute care hospital should provide community resources that family and patient should help participate in the choice of resources and should follow up to make sure the patient received or followed up with the resources. *(Class I, LOE C)*

### Reading Between the Lines

Between the lines:
Which resources need to be set up or given is what is not defined.
- American Heart Association/American Stroke Association has great educational resources
- Rehabilitation resources, Home healthcare agencies, Driving referrals*, etc
THE REHABILITATION PROGRAM: AN IN-DEPTH REVIEW

READING BETWEEN THE LINES

Follow-Up on appointment content
- Between the lines:
- Follow up on recommendations of acute care hospitalization or rehabilitation setting?
- Is the patient falling? It is a Class I level B recommendation that patients participate in a community exercise program with balance training to reduce falls. *(Class I, LOE B)*

Evaluate for social isolation
- Return to work. Recommendations made in guidelines. Vocationally-targeted therapy or vocational rehabilitation. *(Class IIa, LOE C)* / An assessment of cognitive, perception, physical, and motor abilities *(Class IIb, LOE C)*

Between the lines:
- Are there cultural concerns?

Evaluate for post stroke depression and evaluate for anxiety
Administration of a structured depression inventory, such as the PHQ-2, is recommended to routinely screen for post-stroke depression. *(Class I, LOE B)*

Between the lines:
- Which tool do you use to evaluate?
- What do you do when you discover an issue?
Sexuality
Discuss issues before discharged from hospital and again after transitioned home – Class IIb evidence. *(Class IIb, LOE B)*

- Safety concerns
- Changes in libido
- Physical limitations
- Emotional consequences of stroke
- What do you do with these findings?
Between the lines:
Successful transitions to the community and ongoing success in the community takes ongoing support. This support should likely include at a minimum:
- Education
- Training
- Counseling
- Development of a support structure (Patient and Caregiver)
- Financial assistance

Specifics to this are vague and we need more research to better understand this.
Selection of Follow-up Rehabilitation Care

Between the lines:
- AHA/ASA Patient Decision-Making Guide
- Visit the facilities or settings
- Understanding what insurance will cover and what won’t be covered
- Close to home vs. comprehensive services?
AHA/ASA TOOLS FOR PROFESSIONALS AND PATIENTS

- HCP Quick Sheets
- Activation Kit
- Patient Planning List
- Patient Decision-Making Guide

www.strokeassociation.org/recovery
CONCLUSION

STROKE REHABILITATION REQUIRES A SUSTAINED AND COORDINATED EFFORT FROM A LARGE TEAM

including the patient and his or her goals, family, and friends, other caregivers (e.g., personal care attendants), physicians, nurses, physical and occupational therapists, speech/language pathologists, recreation therapists, psychologists, nutritionists, social workers, and others.

COMMUNICATION AND COORDINATION AMONG THESE TEAM MEMBERS IS PARAMOUNT

in maximizing the effectiveness and efficiency of rehabilitation, and underlies this entire guideline.