Post-Acute Rehabilitation

GEORGIA STROKE CURRICULUM

Objectives

- Describe post acute care roles within the multidisciplinary team
- Identify levels of rehabilitative care
- Discuss adapting lifestyle changes
  - It’s a new normal
- Recognize nursing diagnoses and plan of care
- Explain specialized rehab treatments

Rehabilitation Team

Physiatrist

- Responsible for physical medicine and rehab management

Psychologist/Neuropsychologist

- Evaluates cognitive and behavior status
- Assists in the adjustment to illness/disability

Case Managers/Social Worker

- Coordinates implementation of treatment plan, liaison between patient, hospital, payer
- Identifies supportive services and resources
- Coordinates optimal use of available benefits
- Prepares patients and families for discharge

Rehabilitation Team

Nurse

- Patient advocate
- Coordinates day to day care
- Ensure safe transition of care
- Provides education to patient/family

Physical Therapist (PT)

- Maximizes function to improve gross motor skills/mobility

Occupational Therapist (OT)

- Maximize upper extremity strength
- Assist to attain optimal function in ADLs

Speech – Language Pathologist (SLP)

- Eval and treat cognitive/communication
- Eval and treat swallowing disorders/hearing deficits

Levels of Rehabilitation

Acute Hospital Rehab Services

- PT/OT/ST (30-60 minutes daily)
  - Initiates services w/in 24 hours of admission if stable
- Recommends further rehab services if needed

Long Term Acute Care Hospital (LTAC) Post-acute

- Higher acuity (potential trach/PEG)
- LOS 25 days or longer

Inpatient Rehab Facility (IRF) Post-acute setting

- Intense therapy (3 hours minimum daily)
- Medical management provided by an RN
- LOS 10-14 days

Levels of Rehabilitation

Skilled Nursing Facility (SNF) Sub-Acute Facility

- Less intense therapy (1 hour minimum daily)
- Medically stable
- LOS 20-30 days

Home Health Rehab

- Homebound: typically two disciplines
- Can include nursing as a discipline

Outpatient Rehab

- Occurs at an outpatient center
- Typically two rehab disciplines

Key Concerns for Admission

Nursing or medical conditions contributing to delay in discharge from acute care hospital

- Uncontrolled pain
- Fever in the last 24 hours
- IV Access → PICC line placement
- VTE concern → LE/UE ultrasound
- No bowel movement in past 3 days
- Nutrition modality → consults (possible Peg)
- Restraint use (mechanical or pharmacological)
- Adequate discharge plan → long-term discharge
- Mechanical ventilation → tracheostomy placement

Functional Assessment Scales

Know Previous Level of Function

- **Modified Rankin Scale (mRS)**
  - Used in stroke research and outcome studies
- **Rancho Scale**
  - Used for brain injury diagnosis
- **Section GG: Functional Abilities and Goals**
  - Admission and discharge self-care and mobility performance data elements
  - 6 – level rating scale to reflect the patient's functional abilities based on assistance

Modified Rankin Scale (mRS)

Measures the degree of disability

0 - No symptoms

1 - No significant disability; able to carry out all usual activities, despite some symptoms

2 - Slight disability; able to look after own affairs without assistance, but unable to carry out all previous activities

3 - Moderate disability; requires some help, but able to walk unassisted

4 - Moderately severe disability; unable to attend to own bodily needs without assistance, and unable to walk unassisted

5 - Severe disability; requires constant nursing care and attention, bedridden, incontinent (Skilled nursing facility/SNF)

6 - Dead

Know premorbid mRS

Rehabilitation Plan of Care

- Communicative ability
- Educational background
- Vocational status
- Functional ability
- Ability to perform ADL's

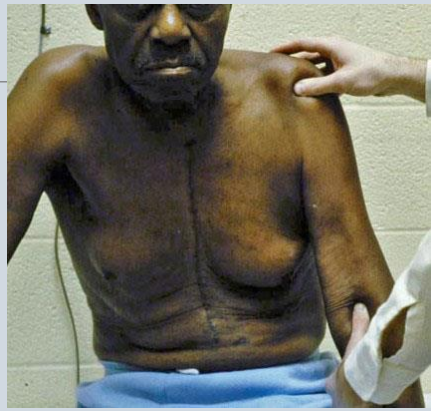
- Physiological
- Psychological
- Cognitive
- Behavioral
- Social / Cultural
- Family Structure & Dynamics

Nursing Diagnosis and Plan of Care

Plan of care initiated within 24 hours of admission includes both short and long term goals

- Activity and exercise
- Medication management
- Bowel and Bladder regimen
- Sexual function
- Discharge planning
- Medical follow up

Nursing diagnosis and Plan of Care



Impaired mobility

- Proper positioning and alignment
- Passive and active ROM
- Build strength and endurance
- Safety: 70% fall during the first 6 months after Discharge

Shoulder pain & subluxation
(Humerus drops out of shoulder socket)

- Related to poor joint alignment & decreased ROM
- Reduced ligament and tendon function supporting the joint
- Treatment: Slings and passive ROM, pain management
- Occurs in up to 22% of all stroke patients
- Occurs in up to 66% of all post hemiplegic stroke patients

Nursing Diagnosis and Plan of Care

Spasticity

- 35% pts may result with contractures and/or limitations
- Functional positioning (i.e. lap trays)
- Electric stimulation (TENS unit)
- Passive and active ROM
- Splinting, Heat therapy

Pharmaceuticals

- Pain management
- Oral antispasmodics, intrathecal baclofen, botulism injections (Botox)

Surgical release of the contracted muscle

Nursing Diagnosis and Plan of Care

Dysphagia affects 30%

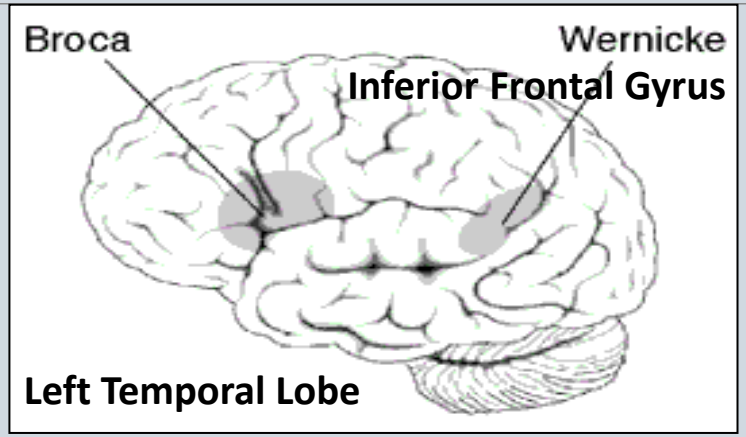
Symptoms include: cough, gurgle wet speech, drooling, trouble holding saliva

- Clinical swallowing evaluation
- Thickened liquids (i.e. nectar, honey thick)
- Modified diet (i.e. puree, mechanical soft)
- Positioning/trunk and head alignment
- Upright > 45^{o} (preferred 90^{o} if not contraindicated)
- Chin tuck, head turn to affected side (directed by SLP)

Speech Abnormalities

Occurs in 25% to 40%

- **Expressive aphasia**
  - Broca's aphasia
- **Receptive aphasia**
  - Wernicke's aphasia
- **Global aphasia**
  - Both expressive and receptive aphasia



Brainstem (posterior circulation)

Dysarthria	Apraxia	Dysphagia
Motor control Slurred speech	Inability to form words with mouth, tongue	Difficulty Swallowing

Nursing Diagnosis and Plan of Care

Impaired Perception (Neglect)

May not be aware of degree or impact of disability

Spatial relationships

- Approach from unaffected side
- Place frequently used items close at hand
- Teach safety techniques (i.e. scan environment)

Impaired Memory

- Strategies
  - Pictures, calendar, memory book

Nursing Diagnosis and Plan of Care

Impaired Bladder/Bowel Elimination

Major reason patients are not cared for at home

Incontinence affects up to half of all stroke survivors

Interventions:

- Toileting program
  - Tracking voiding schedule to determine if a pattern exists
  - Gradually lengthening voiding schedule
- Pelvic floor exercises and muscle rehabilitation
- Modifications to Medication
- Restrict fluid intake at night
- Changes in diet/increase fiber
- Digital stimulation

Nursing Diagnosis and Plan of Care

Impaired Cognition

Most disabling deficit, often overlooked

Cognitive strategies

- Re-orient
- One step commands
- Decrease environmental stimuli

Sexual Dysfunction

- Assess knowledge related to sexual function
- Encourage questions from the patient/spouse/partner

Ask open-ended questions to evaluate patients and partners concerns

Post-Stroke and Depression

Patient assessed using evidence based scale (PHQ-2)

Associated with

- Higher mortality
- Poor functional recovery
- Social isolation

Signs & Symptoms:

- Not participating in therapy
- Decreased appetite
- Avoids eye contact

Left Frontal lobe infarcts have a 70% higher risk of depression

Post-Stroke and Depression

Treatment strategies

- Pharmacological (SSRI)
  - Prozac, Paxil, Zoloft, Celexa, Lexapro
- Psychotherapy
- Combination of both

Involuntary emotional expression disorder (IEED)

- Pseudobulbar Affect (PBA)
- Cry or laugh inappropriately
- Treatment similar to Depression

Discharge Planning

Promote maximum functional capacity based on current and previous level of function

- Family involvement key to success
- Discharge planning begins on admission
- Encourage adherence with medications

Facilitate referrals

- Specialists
- Stroke support groups
- Follow up visits – Stroke Clinics
- Community support (i.e. meals on wheels)

It’s a New Normal

- Adapt to a new way of living
- Maintain and sustain a healthy lifestyle
- Strive to attain maximum functional ability
- Learn ways to maintain optimal health and wellness

It’s a lifelong dynamic plan

Questions – Thank you

References

Comprehensive Review for Stroke Nursing, Second Edition. (2020). In S. L. Kiffon Keigher. American Association of Neuroscience Nurses.

DNV. (2019). Primary Stroke Center Certification Requirements. *DNV GL Healthcare USA, Inc.*

J. Adam Oostema, M., John Konen, B. T., Mojdeh Nasiri, M., & Mathew J. Reeves, P. (2015). Clinical Predictors of Accurate Prehospital Stroke Recognition: a cohort study. *AHA*. Retrieved from www.agajournal.org/toc/str/46/6

Nasser Razack, M. J. (2018). Stroke Made simple. Razack Intellectual Properties, LLC.

Stroke Certification Study Guide for Nurses. (2017). In K. Morrison. Springer .

Susan Ashcraft, D. A. (2021). Care of the Patient With Acute Ischemic Stroke (Prehospital and Acute Phase of Care): Update to the 2009 Comprehensive Nursing Care Scientific Statement. *AHA Journal* .

William J. Powers, M. F. (2019). Guidelines for the Early Management of Patients With Acute Ischemic Stroke:2019 Update to the2018 Guidelines for Early Management of Acute Ischemic Stroke. *AHA/ASA Guideline*.