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Evolution of Rehabilitation: Qualifications, Criteria, and Compensation

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Disclosure Statement

- All statements made as a part of this presentation and/or discussion will be based on the best available evidence.
- I have no financial relationship with any of the products or companies mentioned.



Learning Outcomes

- Identify patients who qualify for post-acute stroke rehabilitation
- Understand the factors affecting stroke rehabilitation LOS and reimbursement



Stroke Rehabilitation, defined

- ***Stroke rehabilitation requires a sustained and coordinated effort from a large team with the patient and the patient's goals at the center. In addition to the patient, it includes family and friends, other caregivers, physicians, nurses, physical and occupational therapists, speech/ language pathologists, recreation therapists, psychologists, nutritionists, social workers, case managers and others.***
- ***Communication and coordination amongst these team members is paramount.***



AHA/ASA's Stroke Rehab & Recovery Guidelines (2016)

- 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 setting. **(Class I, LOE C)**

(Guidelines for Adult Rehabilitation and Recovery, American Heart Association, 2016.)



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AHA/ASA's Stroke Rehab & Recovery Guidelines (2016)

- Early rehab for hospitalized stroke patients should be provided in environments with organized, inter-professional stroke care (**Class I, LOE A**)
- 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 three months and is not recommended (Class III, LOE A)

(Guidelines for Adult Rehabilitation and Recovery, American Heart Association, 2016.)



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AHA/ASA's Stroke Rehab & Recovery Guidelines (2016)

- Enriched environments to increase engagement with cognitive activities are recommended. (**Class I, LOE A**)
- Persons with stroke who have poor balance, low balance confidence, fear of falls and/or are at risk for falls should be provided with a balance-training program. (**Class I, LOE A**)
- Incorporating cardiovascular exercise and strengthening interventions is reasonable to consider for recovery of gait capacity and gait-related mobility tasks. (**Class IIa, LOE A**)
- Eye exercises for treatment of convergence insufficiency are recommended. (**Class I, LOE A**)

(Guidelines for Adult Rehabilitation and Recovery, American Heart Association, 2016.)



AHA/ASA's Stroke Rehab & Recovery Guidelines (2016)

- Functional tasks should be practiced, i.e. task specific training, where the tasks are graded to challenge individual capabilities, practiced repeatedly and are progressed in difficulty on a frequent basis. (**Class I, LOE A**)
- All persons with stroke should receive ADL training, tailored to individual needs and eventual discharge setting. (**Class I, LOE A**)
- Following successful screening, an individually tailored exercise program is indicated to enhance cardiorespiratory fitness and reduce the risk of stroke recurrence. (**Class I, LOE A** improved fitness; **LOE B** for reduction of stroke risk)
- After completion of formal stroke rehabilitation, participation in a program of exercise or physical activity at home and/or in the community is recommended. (**Class I, LOE A**)

(Guidelines for Adult Rehabilitation and Recovery, American Heart Association, 2016.)



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Post-Acute Levels of Care

- 1) LTCH (Long-Term Care Hospital)
- 2) Acute Rehabilitation (IRF)
- 3) Sub Acute Rehabilitation (SNF)
- 4) Home or Community:
 - Home Health Care
 - Outpatient
 - Rehabilitation Day Program
- 5) Long-Term Care Facility (LTC)



Criteria for Rehab (IRF) Admission

- Complex medical, nursing and rehabilitative needs
- Active and ongoing intervention of **multiple therapy disciplines** (PT, OT, SLP, or prosthetics/orthotics)
- **Intensive rehabilitation program** with a **coordinated, interdisciplinary team approach**
 - able to tolerate 3 hours of therapy per day at least 5 days per week
- Expected to make **measurable improvement in functional status** in the anticipated time frame
- Supervision by a rehabilitation physician (PMR) with face to face visits at least 3 days per week
- Safe and reasonable discharge plan

(Centers for Medicare & Medicaid Services)



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Medicare Coverage for IP Rehab

- **Medicare Part A** covers hospital care (acute care, inpatient rehab, LTCH, CAH)
 - 3 day qualifying hospital stay required
 - Coverage for up to 90 days of hospital care per illness (91-150 days are non-renewable lifetime renew days)
 - IP Rehab LOS is based on a DRG (diagnostic related group) and CMG (case-mix group)
 - Average LOS for Medicare patients with stroke at Madonna Rehab in FY 2017-18 was **18 days** compared to region/nation at 14 days
 - Coverage for up to 100 days in a skilled nursing facility (SNF)
- **Medicare Part B** covers outpatient services such as: doctor visits, outpatient therapies/services, home health care, DME
- Medicare beneficiaries account for 60% of IRF cases (2014)

(Medicare.gov)



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Insurance Coverage for IP Rehab

- **Private and Commercial Insurance**
 - Coverage and network participation vary
 - Similar policies to Medicare
 - Precertification and/or authorization required for IRF admission
 - LOS dependent on functional progress and medical necessity
 - Weekly updates provided to insurance CM
 - Subject to utilization review



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Effective Use of a Stroke Continuum of Care: *Case Example*



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Meet Cate

- 23 year old female involved in a minor MVA on 5/7/13 (got out of her car and was struck by alleged drunk driver)
- **Primary diagnoses:** closed head injury, bi-hemispheric ischemic infarcts (left temporal lobe MCA distribution), traumatic left AKA, thoracic aorta dissection requiring urgent endovascular stenting, comminuted pelvic fracture, multiple rib fractures, left pneumothorax, perforated stomach and colon, respiratory failure
- **PMH/social history:** independent, working as an event planner in Springfield, MO



Meet Cate

- Acute hospitalization 5/7/13 – 5/21/13 at North Kansas City Hospital
- Admitted to Madonna's acute rehab level of care (Lincoln, NE) on 5/21/13 where she spent the next 3 months recovering and rehabilitating.....



Focus in Acute Care

- Triage, diagnose, stabilize
- Prevent medical complications and improve medical stability
- Vent weaning
- Early mobilization
- Therapies focus on impairments and activities
- Education for patient/family on what to expect in rehab



Acute Rehab- initial functional status

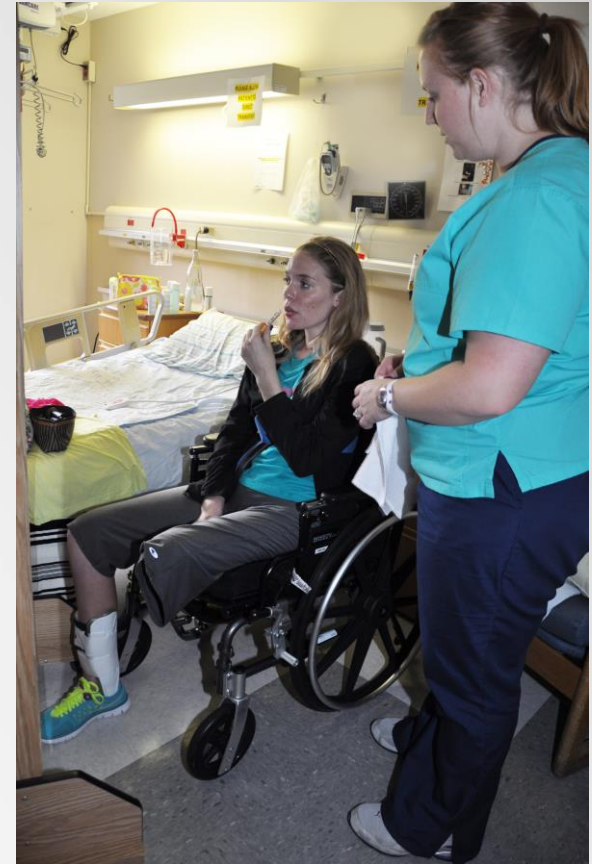
- Total assistance for ADL, self cares and mobility skills
- Dependent for sitting- poor head and trunk control
- R UE/LE hemiparesis, apraxia, lethargy, NWB L LE, spasticity R LE, diplopia, expressive aphasia, impaired reading comprehension and problem solving skills, eye blink to communicate
- Medical management for: L AKA incision, trach, PEG, bowel & bladder incontinence, anemia, 9/10 pain, emotional lability, depressed mood



Focus in Acute Rehab (IRF)

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- Neuromuscular Re-education (R UE/LE)
- Wheelchair management & mobility
- Transfer training
- Self care and ADL training
- Strength and endurance training
- Pre-prosthetic training
- Adjustment & coping
- Managing emotions
- Pain management
- Cognitive-communication skills
- Leisure and recreation
- Directing caregivers to assist with daily activities



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Acute Rehab – Discharge 8/24/18

- Trach, PEG removed, pain well controlled
- Minimal assistance for bathing & grooming, moderate assistance for dressing & toileting
- Moderate assistance w/ functional transfers
- Power wheelchair mobility independently community distances (>1,000 ft); SBA manual wheelchair mobility (200 ft)
- Improved communication skills



Outpatient Rehab

- Rehab Day Program at Madonna (9/3/13 – 11/22/13)
 - Continued PT, OT, SLP up to 4-5 hours/day 3-4 days per week; home on weekends to MO
 - Focus on self cares, ADL, prosthetic training, gait training, community, school & work re-entry, adaptive sports and recreation, neuromuscular re-education R UE/LE, cognitive communication
 - BWSTT, FES bike
- Mid America Rehab for outpatient PT & OT
- **KU Medical Center for speech services**
- Madonna Amputee Clinic (2/18/14)



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Follow-up Amputee Clinic Madonna Outpatient February 2014

<https://www.youtube.com/watch?v=WzXXRAES2d4>



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Strong. Determined. Remarkable.

- Earned bachelor's degree in public relations/communications at Missouri State University (May 2016)
- Earned graduate degree in social work from University of Missouri-Kansas City (May 2018)
- Currently working as a therapist at a Kansas City shelter
- Cate's dream job is to be a social worker at an acute hospital or rehabilitation hospital in the area!





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Graduate degree in SW
WAY TO GO CATE!



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Stroke Rehabilitation: Now and in the Future

- **KEY**, active ingredient is task-specific or task oriented practice
- More practice is likely better, but “how much more?” and “for whom” remains unanswered
 - Dose and timing question
- Functional gains extend beyond 3-6 months
- Imaging tools may help clinicians determine the impact of interventions on cortical re-organization and neural networks
- Promising new rehab technologies like robotic devices, virtual reality, brain stimulation (tDCS, TMS) to increase cortical excitability may help augment neurorehabilitation in the future

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Thank you for your attention!



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