Unique & Foundation

- 795,000 people experience a stroke yearly, making it the leading cause of long-term disability, costing $34 billion.  
- Strokes affecting the middle cerebral artery (MCA) cause impairments of strength, sensation, coordination, and balance of the contralateral side.  
- Recovery from stroke is affected by premorbid status.  
- Cardiovascular disease causes a majority of strokes.

Purpose

The purpose of this case report is to describe a progressive PT plan of care for a patient following MCA stroke with multiple comorbidities in the skilled nursing setting.

Description

- 71-year-old with subacute right MCA infarct (anterior aspect right insular cortex) and type II non-ST elevation MI  
- 39 days in hospital and acute rehab before SNF admission  
- PT exam: dense left sided hemiplegia, affecting his arm more than his leg, impaired strength, balance, sensation  
- 35-80 minutes of PT five days a week  
- PT goals included independent bed mobility and transfers  
- PT POC focused on task-oriented training, therapeutic exercise, and neuromuscular re-education to improve strength, activity tolerance, and functional mobility and independence.

Interventions

<table>
<thead>
<tr>
<th>Therapeutic Exercise</th>
<th>Therapeutic Activities</th>
<th>Neuromuscular Re-education</th>
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</table>
| Supine & Seated Exercises:  
  - 1x10 reps, progressing to 2x20 reps  
  - AROM, AAROM, and PROM  
  - PENS electrical stimulation was utilized during ther-ex | Bed Mobility:  
  - Rolling  
  - Supine ⇔ Sit  
  - Repositioning  
  
  Transfers:  
  - Hoyer lift: bed ⇔ wheelchair  
  - Sit-to-stand lift: bed ⇔ wheelchair, chair ⇔ commode or mat table | Edge of bed:  
  - Feet supported on ground and right UE support  
  - Feet supported without upper extremity support  
  
  Standing:  
  - Standing Frame: Hip harness with right UE support  
  - Sit-to-stand: Trunk harness with right UE support  
  - Parallel bars: Assist of three, with left knee blocking and right UE support |

Figure: Patient utilizing a sit-to-stand lift. He used his right arm to assist in pulling himself upright, and left hemiplegic arm was supported in a sling. His knees were blocked to facilitate LE extension and upright standing posture. A mirror was utilized in front of the patient to allow him to visualize his posture during activity.

Outcomes

- The patient spent 35 days in the SNF  
- Insurance denials and cessation of funds lead to discharge  
- Treatment sessions were based on day-to-day status  
- Treatments addressed his strength, balance, and functional mobility, with careful attention paid to matters related to his comorbidities  
- Caregiver training was provided to aid in transition home  
- Future studies should be conducted to further examine ideal PT interventions to improve functional outcomes for patients following stroke who have multiple comorbidities.

Observations & Conclusions

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References


Acknowledgements

The author acknowledges Michael Fillyaw, PT, MS, for his assistance with case report conceptualization, as well as the patient for participating in this Case Report.