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 without the use of a hoyer lift.
- 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>
</tr>
</thead>
<tbody>
<tr>
<td>Supine &amp; Seated Exercises:</td>
<td>Bed Mobility:</td>
<td>Edge of bed:</td>
</tr>
<tr>
<td>1x10 reps, progressing to 2x20 reps</td>
<td>• Rolling</td>
<td>• Feet supported on ground and right UE support</td>
</tr>
<tr>
<td>• AROM, AAROM, and PROM</td>
<td>• Supine ⇔ Sit</td>
<td>• Feet supported without upper extremity support</td>
</tr>
<tr>
<td>• PENS electrical stimulation was utilized during ther-ex</td>
<td>• Repositioning</td>
<td>Standing:</td>
</tr>
<tr>
<td></td>
<td>Transfers:</td>
<td>• Standing Frame: Hip harness with right UE support</td>
</tr>
<tr>
<td></td>
<td>• Hoyer lift: bed ⇔ wheelchair</td>
<td>• Sit-to-stand: Trunk harness with right UE support</td>
</tr>
<tr>
<td></td>
<td>• Sit-to-stand lift: bed ⇔ wheelchair, wheelchair ⇔ comode or mat table</td>
<td>Parallel bars: Assist of three, with left knee blocking and right UE support</td>
</tr>
<tr>
<td></td>
<td>Wheelchair Mobility:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Using R UE and R LE</td>
<td></td>
</tr>
</tbody>
</table>

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

Observations & Conclusions
- 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.

References

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