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Who: 79 year-old male admitted to SNF s/p MVA with subdural hematoma, ORIF L femur, and GI bleeding.

What: The patient completed 7 sessions on the AlterG Anti-Gravity Treadmill™ during his stay. Treatment resulted in improved LE strength, gait pattern, dynamic standing balance, endurance, and activity tolerance. Berg Balance Score improved from 22/56 to 40/56.

Why: The AlterG Anti-Gravity Treadmill provided a fall safe environment for this patient to work on his gait training and dynamic standing balance, with the goal of increasing participation with ADL tasks, decreasing risk for falls, and enabling safe discharge home with his wife.

Introduction

Patient is a 79 year-old male admitted to Bedford Center in September 2017 following hospitalisation at Mount Sinai s/p MVA in August 2017. MVA resulted in subdural hematoma, ORIF s/p Left Femoral Fracture, and GI bleeding. Patient lives with his wife on the 3rd floor of an elevator apartment building.

Prior to hospitalisation, patient was independent and did not use any assistive devices. Patient was referred to sub-acute care at BC for skilled rehab services.

Goals

- Increase B LE strength.
- Increase static & dynamic standing balance.
- Increase safety and independence w/transfers and ambulation B LE strength.
- Increase safety and independence w/ ADLs and IADLs.
- Decrease risk for falls.

History

- Patient has PMHx of HTN, DM2, anemia, seizures and cataracts.
- He was hospitalised at Mount Sinai from 8/15/17 to 9/22/17.
- Upon Initial Evaluation, patient presented with 3+/5 B LE strength, and scored a 22/56 on the Berg Balance Assessment, demonstrating a moderate risk for falls. Patient was WBAT for the duration of his walking program.
- Approximately 10 days post admission to Bedford Center, patient initiated a walking program on the AlterG Anti-Gravity Treadmill. During this first session, patient walked for 15 minutes at 40% body weight, 0.5 mph speed, and no incline.
- 3 days later, during his 4th session on the AlterG, patient walked for 20 minutes at 40% body weight, 0.7 mph speed, and no incline.
- Again, 3 days later, during his 5th session on the AlterG, patient walked for 20 minutes at 50% body weight, 1.0 mph speed, and no incline.
- 2 days later, during his 7th and final session on the AlterG, patient walked for 20 minutes at 60% body weight, 0.7 mph speed, and 1% incline.
- Program duration was 9 days.

Results

The patient was seen for a total of 7 physical therapy sessions on the AlterG Anti-Gravity Treadmill. He demonstrated an improvement in B LE strength from 3+/5 to 4/5. He also demonstrated an increase in his score on the Berg Balance Assessment from 22/56 to 40/56. Patient demonstrated a significant improvement in ambulation, as he started the program walking 60 feet with Min A, and ended the program walking 150 feet with Standby Assist (SBA).



AlterG Case Study

Functionally, the patient demonstrated an improvement in gait pattern, dynamic standing balance, endurance and activity tolerance, ambulation distance, transfers, and bed mobility tasks. These improvements enabled the patient to participate more with his ADL tasks, decrease his risk for falls, and ensure a safe discharge home with his wife.

Date	Program	Speed (mph)	Incline %	Time (mins.)
03-10-17	Walking at 40% body weight	0.5	0	15
04-10-17	Walking at 40% body weight	0.5	0	15
05-10-17	Walking at 40% body weight	0.7	0	20
06-10-17	Walking at 40% body weight	0.7	0	20
09-10-17	Walking at 50% body weight	1.0	0	20
10-10-17	Walking at 50% body weight	1.0	0	20
11-10-17	Walking at 50% body weight	0.7	1	20

