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# The Role Of Physical Therapy Interventions For An Elderly Patient Following Surgical Fixation Of A Fracture Of The Femoral Shaft: A Case Report

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Push, The Role of Physical Therapy Interventions for an Elderly Patient Following Surgical Fixation of a Fracture of the Femoral Shaft: A Case Report

**University of New England**  
**Department of Physical Therapy**  
**PTH 608/708: Case Report Template**

Name: Ashley Push, Abbreviated (Running) Title: PT Interventions for an Elderly Patient Following ORIF of the Femur

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**TITLE PAGE**

**The Role of Physical Therapy Interventions for an Elderly Patient Following Surgical  
Fixation of a Fracture of the Femoral Shaft: A Case Report**

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The patient signed an informed consent, allowing the use of medical information of this case report, and received information regarding the institution’s policies regarding the Health Insurance Portability and Accountability Act.

This author acknowledges Michael Fillyaw, PT, MS, for his support and conceptualization of this case report and Lisa Duff, PT for supervision and guidance with the patient’s plan of care.

62 **ABSTRACT**

63 Background and Purpose: This case report contributes to and builds upon established knowledge  
64 about the importance of early weight bearing for patients who sustained a fracture and repair.

65 The purpose of this case report is to document this patient's response to skilled physical therapy  
66 in the inpatient setting, including functional mobility, gait training and therapeutic exercise to  
67 maximize the patient's functional ability prior to discharge home.

68 Case Description: This report follows an 88-year old female who underwent open reduction and  
69 internal fixation of her right femoral shaft after sustaining a non-traumatic fracture. The patient  
70 was seen in the acute care unit of the hospital for three days prior to transitioning to the inpatient  
71 skilled therapy. Her care included physical therapy five times a week for 11 days, before being  
72 discharged home with services to continue to maximize functional independence.

73 Outcomes: After completing inpatient skilled physical therapy, the patient met all her physical  
74 therapy goals. She improved her gross lower extremity strength and muscle endurance. She also  
75 was independent with all functional mobility and ambulation with the use of a rolling walker.  
76 She improved her Tinetti Balance Assessment score (15/28 to 20/28).

77 Discussion: In conclusion, this case report successfully demonstrates the important role of  
78 physical therapy in the inpatient setting for patients that have sustained this type of injury. This is  
79 particularly true for a patient such as the one in this case report who also presented with a  
80 multitude of co-morbidities, and barriers to overcome to return to prior level of function.

81 Manuscript word count: 2,588

82

83 **BACKGROUND and PURPOSE**

84 In the United States, approximately half of elderly white females will sustain an  
85 osteoporotic fracture within their lifetime.<sup>1</sup> Hip fractures are one of the most common types of

86 fracture that occur in people over the age of 50, and costs approximately 50 billion dollars a  
87 year.<sup>1</sup> Typically, patients that are post fracture and repair are discharged from physical therapy  
88 within three months, despite residual deficits.<sup>2</sup> One year after surgical repair of a hip fracture,  
89 most elderly patients have not returned to their prior level of function.<sup>2</sup> There has been evidence  
90 demonstrating the benefit of early weight bearing and mobility post-surgery to improve  
91 functional abilities.<sup>3,4</sup> Continued therapy interventions and strength training was observed to lead  
92 to matched strength in the involved and uninvolved lower extremity and improvement in  
93 functional performance.<sup>1</sup>

94 This case report follows the physical therapy (PT) intervention for an elderly female who  
95 sustained an osteoporotic fracture to her femoral shaft. This patient was chosen due to her  
96 uniqueness in fracture location along with co-morbidities. The purpose of this case report is to  
97 document this patient's response to skilled physical therapy intervention in the inpatient setting,  
98 including functional mobility, gait training and therapeutic exercise to maximize the patient's  
99 functional ability prior to discharge home.

100

## 101 **CASE DESCRIPTION**

### 102 **Patient History and Systems Review**

103 This 88-year-old female was seen for PT status-post open reduction and internal fixation of  
104 the right shaft of the femur. The fracture occurred when the patient was ascending stairs in her  
105 home, when she took a step up with her right lower extremity and felt a "crack" in her leg  
106 causing her to fall backward. The patient underwent surgical correction of the femur two days  
107 after being admitted to the hospital. After spending three days in the acute care unit, the patient  
108 transitioned to a skilled care bed and participated in PT and occupational therapy (OT) one to  
109 two times a day five times a week for 11 days. A general systems review was performed (Table

110 1).

111 Prior to admission, the patient lived alone on the first floor of a two-story home and was a  
112 retired nurse. She was independent with all functional mobility and ambulated short distances  
113 with the use of a straight cane. She had been ambulating with a cane after she obtained a spinal  
114 fracture one year previously. Other past medical history includes; osteoporosis, coronary artery  
115 disease with previous myocardial infarction and stent placement in 2014, chronic hypertension,  
116 cholecystectomy, appendectomy, and previous cervical fracture over 30 years ago. A list of the  
117 patient's medications can be found in Table 2. The patient's chief complaint after surgery was  
118 pain and weakness with the involved lower extremity. Following surgical correction of the  
119 femoral shaft, the patient reported that her main goal for PT was to return home independently.

120 This patient agreed to participate in this physical therapy case report and signed an informed  
121 consent, allowing medical information and photographs to be used.

122

### 123 **CLINICAL IMPRESSION 1**

124 The initial clinical impression of this patient was that she was limited in functional  
125 mobility, gait, range of motion, strength, and balance, secondary to surgical correction of  
126 confirmed fracture of the right femoral shaft. The patient's past medical history of osteoporosis  
127 and previous fractures led to the suspicion of weakness and impaired balance prior to onset of the  
128 current injury. It was determined that a gross measurement of strength and range of motion  
129 (ROM) would be administered to measure any limitations. Tinetti Balance Assessment Tool  
130 (POMA) would also be administered to determine the patients fall risk, as well as any balance or  
131 gait deficits that may be present. Finally, an assessment of the patient's ability to perform  
132 functional tasks would be administered to determine the patient's current level of independence.  
133 This patient was chosen for this case report due to her extensive past medical history and co-

134 morbidities contributing to her recovery from invasive surgery.

135

### 136 **EXAMINATION – Tests and Measures**

137 A complete initial physical therapy examination was completed. Strength, ROM, Tinetti  
138 Balance Assessment Tool (POMA), balance, gait, pain and functional mobility were assessed  
139 (Table 3). Strength was measured using manual muscle testing (MMT) and graded accordingly  
140 as described by Kendall.<sup>5</sup> MMT is shown to have excellent test-retest reliability with an  
141 intraclass correlation coefficient (ICC) of 0.98 for the right side and 0.97 for the left side.<sup>6</sup> ROM  
142 was assessed through observation of both passive and active ROM. Major muscle groups of the  
143 upper extremity and lower extremity were observed to either be within functional limits, or  
144 limited in motion. While no psychometric properties have been established for this form of  
145 assessment, it is a way to assess range of motion that is functional in this setting.

146 Balance was assessed utilizing both the balance grades as described by O’Sullivan and  
147 Schmitz,<sup>7</sup> and using the POMA.<sup>8</sup> The POMA focused on examining aspects of both balance and  
148 gait to determine the fall risk of the patient. POMA has been found to have a Minimal Detectable  
149 Change (MDC) of 4.0-4.2. POMA also has excellent test-re-test reliability with an ICC of 0.96  
150 for older adults. Another benefit of using the POMA scale is that it has well established  
151 normative data for older adults.<sup>8</sup>

152 The patient’s gait was assessed through observation as described in the guide to physical  
153 therapy practice.<sup>9</sup> Progress was also measured through recording of the amount of distance that  
154 the patient could ambulate before a rest break was required. The type of assistive device utilized,  
155 and amount of assistance necessary were also documented. The patient’s functional ability was  
156 measured through functional observation. The patient was asked to complete functional tasks  
157 including bed mobility and transfers. The amount of assistance that the patient required, any

158 assistive device needs, and the quality of the mobility were documented. While these  
159 observational tests and measures do not have associated psychometric properties, they are well  
160 established means of assessing the patient's functional abilities in the practice of physical  
161 therapy.<sup>7</sup>

162 Pain measurements were assessed using the numeric pain rating scale. The patient was  
163 asked to rate their pain utilizing a scale where zero indicates no pain, and ten indicates severe  
164 pain. The patient was asked to rate her pain while completing a variety of activities to observe  
165 what tasks caused an increase in her pain rating. The pain rating scale has a minimal clinical  
166 important difference (MCID) for patient's that are in the hospital of 1.3 points.<sup>10</sup>

167

## 168 **CLINICAL IMPRESSION 2**

169 The initial clinical impression was confirmed following examination. The patient's  
170 primary impairments following surgical repair of a fracture to her right femoral shaft included  
171 decreased strength, balance, gait, functional mobility and muscle endurance. Ultimately, this led  
172 to the patient requiring the use of a front wheeled walker with between contact guard to moderate  
173 assistance with all functional mobility and ambulation. This limited the patient's ability to return  
174 home independently and participate in functional tasks. Secondary to impairments following  
175 surgery, the patient was also at an increased fall risk. The results from the initial examination  
176 indicated that patient would benefit from skilled physical therapy to address impairments. The  
177 patient continued to be appropriate for this case study to examine the physical therapy  
178 management of an elderly patient recovering from surgical repair of a femoral shaft fracture.

179 Based on the patient's medical history, and current presentation during initial  
180 examination, two rehabilitation ICD-10 codes were allocated. The primary ICD-10 code was



181 S72.331, *Displaced oblique fracture of shaft of right femur*. The second ICD-10 code chosen was  
182 R26.9, *unspecified abnormalities of gait and mobility*.

183         When determining the patient’s prognosis there were several positive and negative  
184 factors to consider. One positive factor was the patient’s desire to return home, which motivated  
185 the patient to be compliant with therapy. Another positive prognostic factor was that the patient  
186 was weight bearing as tolerated immediately after surgery. This allowed the patient to avoid  
187 immobilization and begin gaining strength and calcifying bone repair more quickly. Some  
188 negative prognostic factors included her age, general weakness, decreased activity level prior to  
189 injury, and diagnosis of osteoporosis. As stated in Kisner and Colby,<sup>11</sup> individuals with suspected  
190 or diagnosed osteoporosis, are more susceptible to pathological fractures, which could have  
191 hinder the patient’s prognosis.

192         While in the skilled inpatient unit, the patient received physical therapy services five days  
193 per week, twice a day. She also received services from OT to address impairments in upper  
194 extremities and activities of daily living. Coordination with OT, nursing, and physicians was all  
195 included in the patients plan of care. The patients desire to return home independently was taken  
196 into consideration when establishing a plan of care. The patient was re-assessed prior to the day  
197 of discharge to confirm that all goals were achieved. Planned interventions for this patient  
198 included bed mobility training, transfer training, gait training, stair training, balance training,  
199 therapeutic exercises to strengthen patient’s lower extremities to prepare for ambulation, and  
200 patient education regarding the patient’s impairments, safety, assistive device training, and home  
201 exercise program. Short and long term goals were created with the patient’s input see Table 4.

202

## 203 **INTERVENTION**

204 Coordination, Communication, Documentation

205 Communication between the physical therapist, occupational therapist, and assistants  
206 remained open throughout the patient's episode of care. Treatment time was coordinated with  
207 OT to maximize participation in therapy and decrease the risk of fatigue. Care was also  
208 coordinated with the attending physician and nursing staff to avoid conflicts with medical  
209 treatments. Documentation for this patient included an initial evaluation, daily progress notes,  
210 and a discharge summary that were all recorded in the hospital's electronic medical record  
211 system.

#### 212 Patient/Client Related Instruction

213 Initial patient education focused on using a new assistive device, body mechanics, and the  
214 importance of pressure relief.<sup>12</sup> Education then shifted to include safe technique during stair  
215 climbing, proper posture during ambulation, the healing process of a fracture, and adherence to a  
216 home exercise program.<sup>11</sup>

#### 217 Procedural Interventions

218 Procedural interventions were chosen based on the patient's clinical presentation and  
219 physical impairments. These interventions included patient education, functional training,<sup>9</sup> gait  
220 training,<sup>13</sup> and therapeutic exercise<sup>14</sup> (Table 5). Functional training was prescribed to improve the  
221 quality of functional tasks, and to provide education for technique and safety. Gait training was  
222 prescribed to improve quality of gait, instruct patient in assistive device use, and maximize  
223 functional independence with ambulation.<sup>11</sup> Finally, therapeutic exercise was prescribed to  
224 increase muscle strength, muscle endurance, and to facilitate improvements in the patient's  
225 ability to participate in functional tasks.

#### 226 Functional Training

227 Functional Training for this patient included performing bed mobility and transfer training. The  
228 PT educated the patient and demonstrated the activities in advance. Bed mobility included

229 rolling, scooting, supine to sit, and sit to supine. Initially, the patient required use of a bed  
230 railing, moderate assist of one to two people, and verbal cues for technique with this task. As the  
231 patient progressed, she performed the task independently with a railing and verbal cues provided.  
232 When the patient was discharged, she was independent with all bed mobility without the use of a  
233 bed railing. The patient also practiced sit to stand and stand pivot transfers. The patient  
234 eventually could transfer independently with a rolling walker. Throughout functional training  
235 verbal cues and visual demonstration pertaining to safety and technique were utilized.

### 236 Gait Training

237 The patient's goal upon discharge was to return home independently, so it was imperative that  
238 the patient could demonstrate safe and independent ambulation. Research has also shown that  
239 gait speed correlates to survival in elderly adults.<sup>13</sup> The goals of gait training were for the patient  
240 to increase distance ambulated with less fatigue, improved quality of gait with improved posture,  
241 weight shift and stride length, and at least good minus balance with a rolling walker. Stair  
242 training was also prescribed for this patient. The focus was safe technique with use of the proper  
243 assistive device. The patient held the stair railing with one hand and a cane in the other hand,  
244 while climbing the stairs with a step-to pattern.

### 245 Therapeutic Exercise

246 Therapeutic exercise was prescribed for to improve lower extremity strength, ROM, and  
247 endurance.<sup>14</sup> Therapeutic exercises were performed in supine, sitting and standing. Initially, the  
248 patient was limited to active assisted range of motion for the right lower extremity, and was not  
249 able to tolerate standing exercises. Through the patient's hospitalization, she improved to active  
250 range of motion with her right lower extremity and increased intensity of exercise to two sets of  
251 15 repetitions for all exercises. See Table 5 for details of therapeutic exercises that the patient  
252 performed.

253 **OUTCOMES**

254           Through the course of treatment, the patient increased her independence by improving all  
255 aspects of functional mobility. She met all her therapeutic goals before she was discharged. Her  
256 POMA score improved from 15/28 at initial examination to 20/28 at the time of discharge.  
257 Significant gains were also observed in the patient’s pain rating scale; at admission, her score  
258 was 3-4/10 and at discharge her score was 0/10. At the time of discharge the patient was  
259 independent with all bed mobility and functional transfers with the use of a front wheeled  
260 walker. The patient also demonstrated improved ambulation and increased distance and quality  
261 of gait upon discharge. At admission, the patient tolerated only 16 feet of ambulation utilizing a  
262 front wheeled walker with moderate assistance. Upon discharge, the patient tolerated 300 feet of  
263 ambulation independently with a front wheeled walker, with improved quality of gait. Table 3  
264 presents a comparison of the patient’s functional abilities at initial evaluation and discharge.

265  
266 **DISCUSSION**

267           This case report describes the physical therapy management of a patient who underwent  
268 surgical fixation of the femoral shaft, with a focus on return of functional mobility in the acute  
269 inpatient care setting. The patient made significant progress with functional mobility, gait  
270 training, and therapeutic exercise throughout her length of stay in inpatient rehab. Initially in  
271 therapy, the patient demonstrated fear associated with weight bearing on her involved lower  
272 extremity. Through progressive weight bearing and the use of a front wheeled walker and  
273 therapist assistance, the patient gained confidence in her ability to bear weight through her  
274 extremity.

275           The patient had several positive factors that may have contributed to her success with  
276 therapy, including, motivation to participate in therapy and desire to return home independently.

277 Another positive factor included the patient's ability to be weight bearing as tolerated  
278 immediately after surgery, which promoted early ambulation. Factors that were initially thought  
279 to negatively impact the patient were her history of osteoporosis, age, and general weakness prior  
280 to injury. Although, these barriers did not impact the patient's ability to achieve her goals, they  
281 did contribute to the referral for home physical therapy services to be provided upon discharge.

282 While extensive data contributing to the knowledge regarding hip fractures is available,  
283 there is little documented about the rehabilitation of osteoporotic fractures of the femoral shaft.  
284 Evidence demonstrates the importance of early weight bearing for patients that have sustained a  
285 hip fracture.<sup>3,4</sup> Early weight bearing was utilized with this patient who demonstrated a gradual  
286 improvement in her ability to ambulate longer distances. The patient also exhibited improved  
287 quality of gait and improved functional mobility when beginning early weight bearing  
288 interventions. The patient in this case is one example of the importance of prescribing  
289 appropriate interventions early in the course of treatment.

290 In conclusion, there are many factors to consider when working with patients who are  
291 post fracture and repair. The prescription of physical therapy interventions, as well as other  
292 factors such as motivation, weight bearing status and other co-morbidities were all factors in the  
293 patient's ability to return to prior level of function. Further research should be conducted to  
294 examine the role between therapeutic interventions and co-morbid factors on the patient's ability  
295 to regain functional independence.

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350 **Table 1. Initial Systems Review**

<b>Cardiovascular/Pulmonary</b>	Impaired: Previous MI and stent placed in 2014. Patient had access to Nitroglycerin, although she never had to utilize medication. Stable Coronary Artery Disease, chronic hypertension
<b>Musculoskeletal</b>	Impaired:  Strength: Patient presented with decreased general strength, noted particularly in the right lower extremity  Range of motion (ROM): noted limitations with right lower extremity secondary to surgical interventions, but still within functional limitations  Posture: forward head and rounded shoulders observed in sitting. In standing patient demonstrated flexed trunk posture, decreased weight bearing on right lower extremity.
<b>Neuromuscular</b>	Unimpaired
<b>Integumentary</b>	Impaired: Incision secondary to open reduction and internal fixation of right femoral shaft was noted, but unable to observe secondary to dressings placed by surgeon.
<b>Communication</b>	Unimpaired
<b>Affect, Cognition, Language, Learning Style</b>	Unimpaired: Alert and oriented to person, place and time. English is spoken. Patient prefers verbal instruction, demonstration and pictures.

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**Table 2. Patient's Current Medication List**

<b>Medication:</b>	<b>Indication:</b>
Metoprolol	Hypertension
Aspirin	Blood Thinner
Crestor	High Cholesterol
Esomeprazole	Gastroesophageal Reflux
Amlodipine	Hypertension
Nitroglycerine	Coronary Artery Disease

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**Table 3. Tests and Measures at Initial Evaluation and Discharge**

Tests & Measures	Initial Evaluation Results		Discharge Results	
	Left	Right	Left	Right
<b>Manual Muscle Testing</b>				
Hip Flexion	4-/5	2+/5	4+/5	4/5
Hip Abduction	4/5	2+/5	4/5	4/5
Hip Adduction	4+/5	3/5	4+/5	4/5
Knee Flexion	4+/5	4/5	4+/5	4+/5
Knee Extension	4+/5	4+/5	5/5	5/5
Ankle Dorsiflexion	5/5	4/5	5/5	5/5
Ankle Plantarflexion	5/5	4/5	5/5	5/5

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<b>Gait Observation</b>		
Distance:	Patient ambulated 16ft utilizing a rolling walker, and moderate assistance of 2 with antalgic gait pattern.	Patient ambulated 300ft w/ rolling walker and distant supervision, with improved quality of gait and decreased antalgic gait pattern
<b>Sitting Balance</b>		
Static	Good	Normal
Dynamic	Good	Good
<b>Standing Balance</b>		
Static	Fair+ with walker and contact guard to minimum assistance	Good-
Dynamic	Fair with walker and minimum assistance of one	Fair+ with walker
<b>Bed Mobility</b>		
Scotting	Min Assistance of one required.	Independent
Roll	Moderate Assistance of one with use of bed railing required.	Independent
Supine to sit	Moderate Assistance Out Maximum Assistance of one in.	Independent
<b>Transfers</b>		
Sit to stand	Minimum assistance of two and rolling walker required	Independent with walker
Bed to chair	Minimum assistance of two and rolling walker required	Independent with walker
Stand Pivot	Minimum assistance of two and rolling walker required	Independent with walker
<b>Tinetti Balance Assessment Tool (POMA)</b>		
Balance Section:	8/16	12/16
Gait Section:	7/12	8/12
Total Score:	15/28- Indicates High Fall Risk	20/28-Indicates Moderate Fall Risk
<b>Numeric Pain Rating Scale</b>		
At Rest	0/10	0/10
Standing/Ambulating	3-4/10	0/10

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**Table 4. Patient Short and Long Term Goals**

<b>Short Term Goal (2-Weeks)</b>	<b>Long Term Goal (4-Weeks)</b>
1. Participate in lower extremity therapeutic exercise to increase proximal muscle strength by ½ a grade to improve transfers and decrease assistance required, while enhancing self-performance.	1. Perform all bed mobility independently with use of adaptive equipment if necessary with only occasional cues.
2. Roll and scoot in bed independently with use of rail, and perform supine to sit with contact guard on one, and sit to supine with minimum assistance of one with adaptive devices to promote functional independence.	2. Transfer with supervision to distant supervision with use of assistive device demonstrating ability to perform sit to stand and reverse independently.
3. Perform sit to stand transfer with least restrictive assistive device and contact guard assistance demonstrating fair+ balance and adequate control during descent with minimal cues required for proper technique.	3. Ambulate up to 150 feet with assistive device and standby assist to supervision, demonstrating improved gait pattern and fair+ balance to allow for safe access within her home and limited community environment.
4. Ambulate up to 40 feet with use of rolling walker and contact guard assistance with improved gait pattern and fair+ balance to allow for safe access within home environment.	4. Improve POMA score by at least 3 points to improve stability and reduce fall risk.
5. Improve POMA score by up to 3 points to decrease fall risk and promote an increase in stability.	5. Demonstrate Independent with home exercise program to improve strength and allow for independent functional performance.
6. Ascend and descend stairs using railing with contact guard assist of one and fair+ balance to safely enter home.	6. Ascend and descend stairs with supervision using railing and least restrictive assistive device exhibiting safe and appropriate technique.

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426 **Table 5. Patient Interventions**

	Rx Day 1	Rx Day 2	Rx Day 3	Rx Day 4
Patient Education	Educated patient about WB status, and technique using RW	Educate patient about the importance of pressure relief throughout the day.	Reviewed pressure relief techniques w/ patient.	Educated patient about the healing process of injury, and importance of mobility on healing process
Functional mobility	-Transfers; sit to stand w/ RW, Min A 1, stand-pivot w/ RW, min A 1 -bed mobility: rolling w/ railing and Mod A 1, supine to sit, w/ railing and Min A 2	-Transfers; sit to stand w/ RW and CGA 1 -bed mobility; rolling, scooting and supine to sit w/ railing and Mod A 1	-Transfers; sit to stand w/ RW and SBA 1 -bed mobility; scooting I w/ railing and cues, sit to supine w/ min A 1	-Transfers; sit to stand w/ RW and SBA 1 -Bed mobility; sit to supine w/ CGA and cues
Gait Training	-45ft w/ RW and Min A 1 with seated rest breaks	-50ft w/ RW and CGA 1	-145ft total w/ RW and CGA 1 with seated rest breaks throughout	-200ft total w/ RW and
Therapeutic Exercise	Supine exercises: -hip flexion -knee extension -hip abduction -isometric hip adduction -isometric quadriceps contraction -ankle pumps 1 set x 10 reps of AAROM on R LE, AROM L LE	Supine Exercise: -hip flexion -knee extension -hip abduction -isometric hip adduction -isometric quadriceps contraction -ankle pumps 1 set x 10 reps of AAROM on R LE, AROM L LE	Seated exercise: -hip flexion -knee extension -isometric hip abduction -isometric hip adduction -ankle pumps 1 set x 10 reps each AROM on both R and L LE	Seated Exercise: -hip flexion -knee extension -hip abduction -ankle pumps 2 sets x 10 repetitions AROM w/ both R and L LE Standing Exercise: -hip flexion 2 sets x 10 repetitions w/ both R and L LE

427 WB=weight bearing; RW=Rolling Walker; SBA=stand by assist; CGA=contact guard assist; Min A= minimum assist; Mod A= moderate assist;  
 428 AAROM=Active Assisted Range of Motion; AROM=Active Range of Motion; R=Right; L=Left; LE=Lower Extremity; W/=with;  
 429 rep=repetition; I=independent  
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**Table 5. Patient Interventions Continued**

	Rx Day 5	Rx Day 6	Rx Day 7
Patient Education	Patient was educated about technique for stair training with use of railing and cane.	Teach back education was performed to demonstrates patients understanding of technique for stair training. Patient also received education about posture during ambulation.	Patient received education about adherence to home exercise program.
Functional Mobility	-Transfers; sit to stand w/ RW and SBA 1 -Stair Training: 4 stairs w/ cane and railing w/ CGA 1	-Transfers: sit to stand w/ RW and supervision assist; stand pivot w/ RW and supervision assist	-Transfers: sit to stand I w/ RW -Bed mobility: I without use of Railing for scooting, rolling and supine to sit. -Stair training: I w/ cane and railing
Gait Training	-250ft w/ RW and supervision assist for safety w/ decreased rest breaks.	-300ft w/ RW and supervision assist	-300ft w/ RW and supervision assist, w/ decreased rest breaks
Therapeutic Exercise	Not performed	Seated Exercise: -hip flexion -knee extension -isometric quadriceps contraction- 5 second hold Standing Exercise: - mini squats -heel raises -hip abduction 2 sets x 10 repetitions AROM for both R and L LE	Seated Exercise: -hip flexion -knee extension -ankle pumps Standing Exercise: -mini squats -heel raises -hip abduction -hip flexion 2 sets x 15 reps AROM for both R and L LE

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WB=weight bearing; RW=Rolling Walker; SBA=stand by assist; CGA=contact guard assist; Min A= minimum assist; Mod A= moderate assist; AAROM=Active Assisted Range of Motion; AROM=Active Range of Motion; R=Right; L=Left; LE=Lower Extremity; W/=with; rep=repetition; I=independent