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Acute Care Physical Therapy Management of an Elderly Patient with Posterior-Lateral Approach Total Hip Replacement

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ACUTE CARE PHYSICAL THERAPY MANAGEMENT OF AN ELDERLY PATIENT WITH POSTERIOR-LATERAL APPROACH TOTAL HIP REPLACEMENT

by

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Bachelors of Science in Biology
University of Sioux Falls
2007

A Scholarly Project Submitted to the Graduate Faculty of the

Department of Physical Therapy
School of Medicine
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In partial fulfillment of the requirements for the degree of

Doctor of Physical Therapy

Grand Forks, North Dakota
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This Scholarly Project, submitted by Kristi J. Mackedanz in partial fulfillment of the requirements for the Degree of Doctor of Physical Therapy from the University of North Dakota, has been read by the Advisor and Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

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(Graduate School Advisor)

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(Chairperson, Physical Therapy)
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Title Acute Care Physical Therapy Management of an Elderly Patient with Posterior-lateral Approach Total Hip Replacement

Department Physical Therapy

Degree Doctor of Physical Therapy

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Signature _______________________

Date _______________________

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I would also like to thank my fellow classmates, Renee, Kyle, Ken, and Stacy for editing, proofreading, and providing direction.
ABSTRACT

Background and Purpose: This article describes the acute care physical therapy management of an 88 year old female who underwent elective left posterior lateral approach total hip arthroplasty surgery. The patient was seen post-operative day one presenting with extreme pain, decreased functional mobility, and decreased range of motion and strength. Total hip arthroplasty has become a common surgery among the elder population to improve their functional and decrease pain occurring in their hip. The purpose of this article is to describe the interventions used with this patient, such as bed exercises, ambulation, and the functional outcome. Case Description: This patient suffered severe pain and decreased function due to osteoarthritis in her left hip joint. Conservative treatment did not help improve any of her signs and symptoms.

Intervention: The treatment of this patient included therapeutic exercises, bed mobility, transfer and gait training, functional activities, and education on precautions and protocol for this type of surgery. Outcomes: Following acute care physical therapy intervention, the patient achieved independent transfer abilities including bed, chair, and commode; decreased pain, increased strength and range of motion and independence with her home exercise program. The patient was able to ambulate with a front wheeled walker 25 meters with contact guard assist of one while achieving equal step lengths. Discussion: Rationale for treatment was based on the surgeon’s protocol and supporting evidence on the treatment of patients with total joint replacements.
Treatment was progressed and adjusted based on patient’s response. The outcomes with this specific patient were less than optimal due to decreased motivation from patient.
CHAPTER I
BACKGROUND AND PURPOSE

Primary total hip arthroplasty (THA) has become a prevalent elective surgery performed in the United States and many other countries in the world. In the elder population, it has become one of the most prevalent elective surgeries performed and is estimated that 1% to 3% of those 65 or older will have a THA sometime in their lives.\(^1\) Another study found that among an aging population of 7577 patients, hip osteoarthritis was diagnosed in approximately 8% of women and 7.4% of men; also, hip replacement was appropriate in 37.7% of men and in 52.7% of women with osteoarthritis.\(^2\) It is estimated that between 150 000 to more than 200 000 total hip arthroplasties are performed each year in the United States.\(^3,4\)

Osteoarthritis is the most common diagnosis of patients that elect to undergo a THA and it causes substantial dysfunction in a patient’s ability to perform activities.\(^4\) Other common diagnoses that can often lead to a THA include: rheumatoid arthritis, other types of inflammatory arthritis, post-traumatic arthritis, and osteonecrosis of the femoral head.\(^1\) The elder population in the United States is expected to increase dramatically due to the Baby Boomer generation nearing the age of retirement. This large increase in the aged population will significantly increase the need and occurrence of elective THA.\(^4-6\) Also, the increase will demand the health care industry to use advanced technology to surgically repair, and more importantly, treat these patients with the most efficient postoperative (post-op) care. This will allow the patients a decreased hospital stay and the quickest way to get them back to their functional abilities.
The human body structure affords the hip joint stability while allowing a significant amount of range of motion in the joint. The hip joint is the second most moveable joint, following the glenohumeral (shoulder) joint. During standing, the lower extremities have to sustain the entire weight of the upper body. Being that the hip joint is required to support so much of the human body weight and endure multiple varying movements, these joints are often injured or degenerate with age, causing great immobility and decreasing functional activities. A typical protocol following a THA surgery includes patient’s weight bearing status, exercises, transfers, and ambulation twice a day with an assistive device. There are also noted disadvantages and risks connected with a total joint replacement. Particularly for this patient, the surgeon’s choice of a postero-lateral approach “is associated with the highest incidence of postoperative joint instability and resulting subluxation and dislocation of the hip,” which are most common during the first 2 to 3 months post-operative. Another large risk factor for this patient was her age. Patients who are older than 80 to 85 years have an increased risk of dislocation after surgery. I chose this patient because out of the few patients I was able to see from initial evaluation to discharge, she was the only one with a common surgery, but was unique with respect to her age and also home setting.
CHAPTER II
CASE DESCRIPTION

The patient highlighted in this case study suffered severe pain and decreased function at home for many years due to the osteoarthritis that had set into her left hip joint. She underwent multiple attempts to treat this condition with conservative treatment, but her pain and loss of function worsened bringing her to the decision to undergo a total hip arthroplasty (THA).

The patient was an 88-year-old female who was referred by her surgeon for acute care physical therapy due to her elective left total hip arthroplasty. She stated the hip had become increasingly painful, causing increased difficulty with activities of daily living. She explained in her preoperative consultation that the pain in her left hip was getting so severe that it was becoming too difficult for her to get around at home or in the community any longer. She said her pain lessened when she lay down, however, ambulating stairs and getting into and out of a car worsened her pain. She had also undergone several attempts of injections and trochanteric bursa treatment preceding the decision for joint replacement. Surgery was scheduled and performed.

The patient was a retired school teacher who had been widowed for several years prior to her surgery. She was not involved with any specific leisure activities; however, she had brought a few novels for reading during recovery. She had a son living nearby who owned a hotel, and she would most likely stay with him postoperatively in a split-level home. Her intent was the stay with him until she was able to live independently and then return to her own home. Her son
said he had multiple flights of stairs outside his home that she would need to ambulate when discharged. Her past medical history included: GERD with achalasia, osteoporosis, trochanteric bursitis, adenomatous colon polyps, low grade dysplasia, diverticulitis, internal hemorrhoids, cervical spine degenerative joint disease, and mild hyperlipidemia. Past surgical history included: appendectomy, tonsillectomy, right ankle fracture, cholecystectomy, hysterectomy and bilateral cataract surgery. She did not report tobacco or alcohol use.

She was seen the day after her left total hip arthroplasty and she rated her pain as a 10 on a 0 to 10 scale, 0 being no pain and 10 being the worst pain she ever experienced. She was on morphine drip to manage postsurgical pain. Patient noted that morphine did cause her intermittent nausea. She also took Nasacort for indoor and outdoor allergies, Boniva to treat and prevent osteoporosis, and Lunesta for a sleep aid as needed. There were no major side effects noted for these medications that would contraindicate physical therapy interventions. 9,10

This patient did not report any specific goal(s) to her therapist besides wanting to become pain free overtime. Goals for this patient made by the therapist included improvement of dependent mobility and decreased strength. These goals were designed to help restore her functional mobility at home and in the community.

A systems review of the patient included an assessment of the cardiovascular/pulmonary system with: blood pressure at 144/70 with a respiratory rate of 16 and normal respiratory effort. The integumentary system displayed no edema in the extremities and normal skin color. She demonstrated upper extremity range of motion and strength which was within functional limits (WFL), meaning the amount of range and strength is enough to allow her to function but it may have a decreased amount compared to norms. The patient was 157.48 cm in height and weighed 46.4 kg. The patient was alert, oriented and had clear speech.
Examination, Evaluation and Diagnosis

Initial postoperative examination of the patient included the following tests and measures: manual muscle testing, sensation, range of motion, bed mobility and transfers.

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip</td>
<td>WFL</td>
<td>not measured-orthopedic precautions</td>
</tr>
<tr>
<td>Knee</td>
<td>WFL</td>
<td>WFL</td>
</tr>
<tr>
<td>Ankle/Foot</td>
<td>WFL</td>
<td>WFL</td>
</tr>
</tbody>
</table>

Due to time constraints and high patient loads at this facility, many of the tests used in the examination portion were not measured objectively. The main goals for the patient, along with following the surgeon’s protocol, were to get her out of bed and into a chair for at least 30 minutes twice a day to decrease the likelihood of pneumonia and deep vein thrombosis (DVT) development and to introduce the exercise protocol. The experienced clinical instructor did not use a goniometer to measure the patient’s lower extremity range of motion. Instead she relied on her skills and visually measured. This technique is not the most accurate in measuring range of motion; however with approximately 15 to 20 years of experience as a physical therapist and for the general purpose of gaining an idea of the patient’s motion the visual method appeared to be adequate for its purpose with this patient. A study measuring hip range of motion with three teams of physical therapists using goniometry and one experienced surgeon who visually measured patient’s range of motion found “good agreement” between the two forms of measurement.11 Another study measured the reliability of goniometric measurements versus visual measurements also in knee range of motion and found intertester reliability for measurements obtained with a goniometer was 0.90 for knee flexion and 0.86 for knee extension. The intertester reliability for measurements obtained by visual estimation was 0.83 for knee
flexion and 0.82 for knee extension. These studies indicate that visual estimation, especially when done by experienced clinicians, can be quite accurate.

This therapist also took into consideration how the patient performed her functional activities, such as sit-to-stand and ambulation. Since these activities require a certain amount of range at each joint to perform, the therapist documented that the patient was within functional limits. The therapist inquired about upper extremity function and observed for any notable range of motion limitations. There becomes an increased reliance on the upper extremities to help with transfers, ambulating, etc. when a lower limb is debilitated.

| Table 2. Initial Lower Extremity Manual Muscle Testing |
|---------------------------------|---------------------------------|
| Hip Flexion                     | Right WFL                       |
| Knee Flexion                    | Left 2 Poor                    |
| Ankle Dorsiflexion              | 2+ Poor +                      |
|                                 | 3- Fair -                       |

Manual muscle techniques for the hip flexors, knee flexors, and ankle dorsiflexors were used during the initial examination to measure the general strength in her lower extremities. The patient positions for these techniques were modified to accommodate the surgical area as follows: hip flexion was performed in supine while knee flexion and ankle dorsiflexion were performed with the patient sitting at the edge of the bed. These three main muscle groups were the standard areas evaluated at this facility before patients were encouraged to transfer out of bed and attempt ambulation. The reduced time and thoroughness of the strength assessment is supported by studies performed finding interrater reliability ranging from 41% to 51% and intrarater reliability ranging from 54% to 65%. In this study, the examiners were allowed to use the manual muscle technique of their choice instead of having a standardized technique; clinicians often use the technique they learned in training with which they are most comfortable,
so the same technique is not frequently performed among therapists. Please refer to table 2.

Table 3. Initial Patient Transfers

<table>
<thead>
<tr>
<th>Transfer Type</th>
<th>Assistance Required</th>
<th>Distance &amp; additional assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supine to sit</td>
<td>Maximal Assist of 2</td>
<td></td>
</tr>
<tr>
<td>Sit to stand</td>
<td>Moderate Assist of 2</td>
<td></td>
</tr>
<tr>
<td>Ambulation</td>
<td>Minimal Assist of 2</td>
<td>1 m distance from bed to chair with FWW</td>
</tr>
</tbody>
</table>

FWW = front wheeled walker

A key indicator of how well the patient is able to move and ambulate comes from the performance score in functional mobility and transfers. Her ability to get into and out of bed, a chair, or commode at the hospital is representative of how she will perform at home without physical therapy supervision and help. Transfer capability in supine to sit, sit to stand, stand to ambulating, ambulating certain distances, and ambulating stairs, and the amount of assistance required to perform these activities provide the clinician and physician insight into her level of independence and the assistance she will need at home to remain safe. Refer to Table 3. A study using five functional tests for mobility, speed, and assistance required graded these activities using the newly developed Iowa Level of Assistance Scale (ILOA) of patients who had either a total hip or knee replacement to measure the assistance level needed to complete these tasks. This study concluded the five activities graded with ILOA appeared to have moderate to good inter-rater reliability and good to excellent intrarater reliability when applied to these patients (pts) with arthroplasties. The functional activities appeared to be valid, as demonstrated by close association between total functional score and Harris Hip Scale scores. The functional activities
also appeared to be responsive to changes in the patient’s functional status between 2 to 6 days postoperative during the acute phase.\textsuperscript{15}

Lastly, before transferring out of bed the patient’s lower extremity sensations were examined. It was documented the patient had intact sensation bilaterally in her feet to superficial touch. Sensation testing is usually guided by the patient’s past medical history, (e.g. presence of diabetes mellitus), and is usually focused on certain areas that may have been affected by surgery, injury, or condition and that are key to physical therapy goals (e.g. ambulatory independence and distance). An entire body examination of sensation is rarely required for these reasons.\textsuperscript{13}

The overall evaluation revealed that the patient had decreased mobility, range of motion, and strength in the left hip following the recent elective primary left total hip arthroplasty. She experienced nausea at times due to postsurgical pain medications and past gastrointestinal history. Patients typically experience pain and a decrease in mobility for days, weeks, and possibly months to come but will continue to improve as time goes on and expectedly bypass her functional abilities prior to surgery and with decreased pain. The patient’s problem areas were her dependent mobility, increased pain, decreased strength, and decreased range of motion. She required maximum assist of two people to help her sit up from supine in bed and needed assistance with her legs to swing them over to the edge of the bed when moving into sitting. She required moderate assistance of two to transfer from sit to stand and also from stand to sit and used a front-wheeled walker and minimum assist of two to ambulate one meter from her bed to the chair. She was only able to complete three repetitions of the THA protocol exercises.
Physical therapy diagnosis is “Practice Pattern 4J: Impaired Joint Mobility, Motor Function, Muscle Performance, and Range of Motion Associated with Joint Arthroplasty” with an ICD-9 code of V43.64.16

**Prognosis and Plan of Care**

The prognosis and plan of care for this patient were that she should be able to reach the most favorable range of motion, muscle strength, joint mobility, and motor function and would have increased function at home, during her leisure activities, and in the community, all within the next half year.16 The impression the therapist had of the patient was that she was pleasant and followed directions well; however she was not quite as motivated as expected and was apprehensive about movement due to the increased pain she experienced. Appropriate intervention for this patient included therapeutic exercise for the lower extremities, patient education on her surgery and precautions, exercises and functional activities, gait training with a front wheeled walker, functional therapeutic activities and ice for modalities. Short term goals for her included the ability to transfer into and out of bed with contact guard assist and to obtain independent status with her home exercise program, both to be met within one week. Intermediate term goals for the patient included she would be able to ambulate 25 meters with contact guard assist using a front-wheeled walker and could ambulate stairs with contact guard assist and a assistive device, to be met in two weeks.

The procedure used to re-examine and evaluate this patient’s progression was based on her subjective pain level, ability to perform protocol exercises, her ability to follow precautions, and how the assistance for mobility changed during every visit with therapy.
CHAPTER III
INTERVENTION

The intervention provided by hospitals following a total hip arthroplasty procedure varies depending on what the surgeons believe will provide the best outcomes for their patients. The surgeons decide what they think will work best and create protocols for the rehabilitation teams to follow. Protocols are often fairly similar involving exercises, transfers, and ambulation with assistance. One study wanted to determine if bed exercises following a THA were unnecessary to help improve mobility. If so, then the bed exercises could be taken out of the protocol and PT could focus on mobility alone, which could potentially reduce health care costs. This study found that statistically, the bed exercises were not found to effectively improve a patient’s mobility. However, in every graph they provided the patients with the bed exercises required less assistance with transfers and show a reduced level of assistive device than the control group which did not perform bed exercises.

This patient was seen twice a day for approximately 25-minute session for 4 consecutive days in the acute care setting. The surgeon decided she was to ambulate weight bearing as tolerated on her surgical leg, meaning she could put as much weight as she could handle without causing too much pain. The surgeon’s protocol included bed exercises to be performed at least 2 times a day with therapy and 2 additional times throughout the day by the patient outside of therapy. A home exercise program (HEP) was implemented, which contained the same exercises as the protocol bed exercises to allow the patient the opportunity to learn them throughout their
hospital stay. The surgeon wanted the patient to ambulate as much as she could tolerate at least twice a day.

During the first treatment session the patient rated her pain at a 10 on a 0-10 scale pre-treatment. An abduction pillow was placed between her thighs to prevent her from adducting her surgical leg past mid-line, a posture that promotes dislocation. The interventions began with therapeutic exercises to the involved limb for 3 repetitions in bed including: ankle pumps, quadriceps sets, gluteal sets, heel slides, limited hip abduction/adduction, short arc knee extension, and straight leg raises all requiring moderate assist of 1. She was educated on hip precautions which are as follows: no internal rotation, adduction past neutral, or flexion past 90 degrees with her involved hip. The hospital provided a THA booklet explaining the exercise protocol with pictures, precautions, and other tips for activities of daily living. It was available for any questions that arose when professionals were not available. Functional activities such as bed mobility and transfer from bed to chair with a front-wheeled walker were performed. The transfer from supine to sit required maximum assist of 2; the therapist helped her behind the shoulders, and the student therapist helped with rotating her pelvis and sliding her legs towards the edge of the bed. The sit to stand transfer required moderate assist of 2 with directions and assistance to scoot towards the edge of the bed and to place one hand on the walker while the other helped push up and off the bed. Ambulation required minimal assist of 2 for 1m to chair. She had extreme pain and the chair had to be pushed closer to her because she did not believe she could go further. A gait belt was placed around her waist when she had gotten into a sitting position and was used throughout the transfers. Gait belts are used by therapist to allow them a safer way to hold onto and help patients with transfers and ambulation when they are not independent.20 They are required by hospitals to insure the safety of their patients during
transfers and ambulation. The patient was asked to sit up in chair for at least a half hour before going back to bed to help reduce the risks of pneumonia and DVT. She was asked to rate her post-treatment pain on the 0 to 10 scale; she stated her pain had not changed. This session included the initial evaluation and functional therapeutic activities, each consisting of 10 minutes.

The second session was in the afternoon of the same day and consisted of the protocol therapeutic exercises x 10 reps and functional activities. The patient’s son, with whom she was going to be staying once discharged was visiting and asked a few questions. The therapist recommended home health assistance since they lived quite a distance from any available clinic. The goal of this treatment session was to transfer from supine in bed to sitting in the chair and to sit up for at least thirty minutes. She rated her pain as a 0 pre-treatment but did state she had increased pain whenever she attempted to straighten the left hip. The therapist advised she try to flatten the hospital bed every 2 hours to allow for her hip to straighten out, or she may develop a hip flexion contracture. She required maximum assist of 2 for the supine-to-sit transfer in bed needing assistance with the shoulder girdle, pelvis and legs as before. She required moderate assist of 2 for the sit-to-stand transfer with cues to place feet directly under her and push with 1 hand from the bed. She ambulated 1 m from the bed to chair requiring minimum assist of 2. Post-treatment her pain increased with movement and rated it as a 6. This session lasted 25 minutes total with 15 minutes spent on therapeutic exercises and 10 minutes on functional therapeutic activities, such as the transfers.

The following day the patient agreed to therapy with some motivation from the therapist. She complained of an upset stomach and rated her pain at a 6 pre-treatment; however, she had been given pain medications prior to this treatment session. She stated she had been up to the
chair earlier in the morning with nursing so she was a little drained of energy and did not desire to ambulate and sit up in the chair. The therapist decided to continue with a similar treatment session as the day before to maintain consistency in hopes the patient would gain confidence and not fear the production of more pain than she could tolerate. The session consisted of therapeutic exercises following the surgeon’s protocol for 10 repetitions and functional activities with transfers and ambulation. The patient transferred with moderate assist of 2 for supine to and from sitting and moderate assist of 1 for sit to stand. She required minimum assist of one for ambulation of 1 m with the FWW. Since she did not want to sit in the chair, the therapist decided that 3 to 4 steps forward from the bed and then walk back to the bed would be a sufficient distance. When the patient performed this, she was able to bear more weight on her surgical leg and had equal step lengths. Also, PT reviewed the patient’s hip precautions, instructing her that while seated, bending forward past 90 degrees was prohibited even to pick something off the floor. She rated her pain as a 7-post treatment. Nursing had administered pain medication to her prior to this therapy session so nursing was not notified of her increased pain level at this time. The session was documented as 14 minutes of therapeutic exercise and 14 minutes of functional activities.

That afternoon the patient was seen again and stated she had pain in her low back and left hip, rating them both as a 5. The patient agreed to therapy but required a lot of motivating to ambulate further distances. The patient’s niece was present for therapy and asked many questions regarding her aunt’s exercises and precautions. She was very eager to understand and learn how to help. The patient performed therapeutic exercises in bed for 10 repetitions in supine with minimum assist of 1. Her bed mobility required moderate assist of 1 with help lifting her legs into and out of bed and scooting towards the edge of the bed. She stood from the
bed independently using the FWW and then desired to use the restroom. She was able to ambulate 3 m with contact guard assist of 1 with use of front-wheeled walker. While the patient was using the commode her niece noticed the patient had wrapped her left ankle around the leg of the commode and inquired if this was causing internal rotation of the limb. The therapist said she was correct and advised the patient to discontinue doing this habit, which she did. The physician was present during the therapy session and strongly encouraged the patient to increase her ambulation distance to more functional distances she would encounter at home. She rated her pain as a 5 post treatment. The session was documented as 15 minutes of therapeutic exercise and 10 minutes of functional activities for a total of 25 minutes of therapy.

On the third day of treatment the patient rated her left hip pain as a 6 and the therapist noted increased facial grimacing with movement of the limb. She also complained of increased nausea and continued to need motivation to attempt ambulation of longer distances. The therapist decided to have the patient ambulate and then lie back in bed to perform the protocol exercises since she was not feeling well at that time. She was able to increase her ambulation distance to 8m with contact guard assist of 1 and using the front-wheeled walker. She was cued to stand inside the walker more, to increase her stability, and to avoid internally rotating her left hip when turning to the left. She requested not to ambulate any further due to her stomach pain and commented that she had been moving around with nursing prior to therapy. She still required minimum assist of 1 with lifting her legs out of bed and contact guard assist for sit-to-stand transfer. She then performed 10 repetitions in bed with minimum assist of the protocol exercises. Her pain level remained a 6 post treatment. She was seen for a total of 25 minutes including 15 minutes of therapeutic exercises and 10 minutes of functional activities.
On the third day’s afternoon session the patient said she did not have any pain pre-treatment and said her stomach was feeling much better than yesterday. She transferred with minimum assist of 1 from supine to sit, needing help with getting her legs toward the edge of the bed. However, she was able to scoot without any assistance. She needed contact guard assistance of 1 transferring from sit to and from standing. She was able to ambulate 15 m with the front-wheeled walker and with contact guard assistance of 1. The therapist continued cuing her to watch her internal rotation of the hip while turning to the left. She seemed more cognizant of the movement. She was steadier using the walker, allowing the therapist less concern for the patient’s safety. After ambulation the patient sat in the chair, needing cues to remember to reach back for the arm rest of the chair before starting to sit down. In the chair, she performed long arc knee extension exercises and abduction/adduction of the hip with her knee flexed for 15 repetitions with only minimal assistance. Throughout the session she did not complain of pain and did not rate her pain for the therapist at the end. This treatment session lasted 27 minutes total and included 15 minutes of functional activities, such as the transfers and ambulation, and 12 minutes of therapeutic exercises in the chair.

The fourth and final day of acute care physical therapy the patient was very pleasant and cooperative, stating she was hoping to be transferred to the rehabilitation hospital today. The rehab hospital provided round the clock nursing care and 2 to 3 hours of physical and occupational therapy per day, to work toward readying her for a safe discharge home. On this day she did not rate her pre-treatment pain but did say she felt better during resting periods. The patient stood up on her own while the therapist was getting the gait belt ready. She was steady and performed the transfer correctly. She was able to ambulate the furthest distance of 25 m with contact guard assist while using the front-wheeled walker. The therapist cued her to step through
with her right foot, instead of limping. When she did this, she stated her left hip felt better. The therapist had her practice turning to the left with her walker to test internal rotation. She did much better taking mini-steps to turn herself around. At the end of the session she performed long arc knee extension and hip abduction/adduction for 15 repetitions with minimum assist of 1 while sitting in the chair. This therapy session was a total of 20 minutes including 10 minutes of functional activities and 10 minutes of therapeutic exercise. Following this treatment session her goals were reviewed by the therapist to assess how well she was improved over the course of her stay. At this time the patient had not attempted going up or down stairs, an activity most patients practice before discharge. With multiple flights of stairs at home, it was going to be important prior to returning home. For this reason and the amount of assistance needed to sit up in bed and get to the edge, she was transferred to the rehabilitation hospital to improve these skills before returning home. She was not seen for her afternoon therapy session by the acute care team due to the discharge.
CHAPTER IV
OUTCOMES

This patient was seen by physical therapy for 4 days following her THA and was discharged from the acute care hospital to the rehabilitation hospital. During her last session of acute care PT she required minimum assistance of 1 to transfer from supine to and from sitting, needing help to lift her lower extremities into and out of bed. She was able, however, to independently scoot towards the edge of bed. The patient transferred from sit to and from standing independently from the bed, chair, and commode using her front-wheeled walker correctly. She was cognizant of all her total hip precautions, which was noted by the patient asking questions of the therapist during sessions. She had reached a problem solving level. She was also able to ambulate 25 m using her front-wheeled walker and contact guard assist of 1. The patient was independent with her HEP and able to recite and apply the hip precautions in her transfer and other movements. Her pain began as 10 out of 10 at the first PT visit and decreased to 6 out of 10 at the end of the 4th day of treatment. On the 3rd day’s afternoon session she did not complain of pain at all, even with movement, showing that her pain had begun to subside. The physical therapist set ambulation of stairs as a goal for her before being discharged; however, stairs were not assessed due to her slow progress and short hospital stay. Due to the inability to reach functional ambulation distance and inability to ambulate stairs, both the physician and patient felt it was appropriate for her to continue care at the acute rehabilitation hospital. She required further therapy to work on independent bed mobility, increasing
ambulation distance, and ambulating stairs, all of which would help reduce her risk of falls, before being discharged home to multiple staircases.

Throughout her time in therapy, the patient required motivation to continue to work on her exercises and to push herself to ambulate further. As therapy continued and with her physician’s insistence, she began to try more. She continued to experience rather high pain levels throughout her hospital stay, and often they were not only due to the movement of the surgical joint, but from other comorbidities such as her nausea from not being able to take her GERD medications. I think she did not understand that after surgery she would have to move around much or work very hard. It is a common misconception among patients that resting will make them feel better and that’s all they need. Resting is important but they also need to exercise and continue moving to keep other areas of their body healthy and help their bodies heal. At the end of her stay, she was very excited to leave the hospital but greatly appreciated the therapist and student therapist for working with her.

A clinimetric scale was not used with this patient to assess her pre- and postoperative status. A clinimetric scale is used as an objective way to measure a patient’s progress performing certain tasks, the scale is applied pre-treatment and then post-treatment before being discharged. The Hip Disability and Osteoarthritis Outcome Score (HOOS) would have been an excellent scale to use to assess this patient’s progress. The patient is able to fill out this survey, which is geared towards people the between the ages of 45 to 89 years old, in approximately ten minutes. The survey asks the patient to rate their symptoms, stiffness, pain levels, how well they feel they function at home and with recreational activities, and their quality of life.
CHAPTER V
DISCUSSION

With this THA patient we focused a majority of our treatment sessions on her transferring skills. We felt that we should teach and practice these areas due to their importance to a person’s livelihood. It is key for a patient to have the ability to sit up in bed and stand up from sitting in order to get onto the feet when necessary. This patient was willing to work on the transfers and also perform her exercises; however she was not motivated to ambulate and many days she only went 1 m to 8 m which is not a very functional distance compared to many people’s homes. The lack of motivation this patient had was a limiting factor in the progress of treatment. With the physician’s encouragement and our persistence, we were able to encourage her to ambulate 15 m and 25 m towards the end of her stay, a distance which is more practical for patients when they are at home. Twenty-five meters was, most often, the minimal distance goal we set for our patients at this facility.

Treatment revolved around ambulation, transfers, and bed exercises. Some facilities do not emphasize a need for very many bed exercises compared to ambulation. In a study designed to determine the effectiveness of bed exercises following a THA, they measured their patients’ ability to transfer (supine to sit and sit to stand) and walk 4.57 m, their walking velocity and lastly stairs ambulatory function. According to their charts, a large majority of their patients required assistance of 2 for their supine to sit transfers up to day 3 and 4 post operatively and at 7 to 8 days they required less than 1. These similarities between my patient and this study included the average age of the study’s patients at 69.2 years and her age at 88 years old. She was only in the acute care hospital for 4 days whereas their patients were kept longer at up to 7
or 8 days. These patients differed however, in that they were ambulating stairs by day 3 to 4 of their treatment, and with our patient we did not feel it was safe to attempt yet. Although, we were considering attempting the stairs that afternoon if she had not been discharged.

I feel studies of patients, who are more advanced in age, >65 years of age, would benefit therapists and physicians. The average age for a THA is 66 years but with our aging population we can reasonably assume that the average will increase. There may be more patients who wait longer to have a joint replaced and studies with evidence on how to best treat these patients can help guide therapies and also help surgeons choose the best operative procedures. THA surgeries have become an effective way to improve patients’ quality of life by giving them back the ability to perform more functional movements that they have given up and also by significantly reducing their pain symptoms. However, at this time some physicians do not recommend patients over the age of 85 choose the route of a THA due to the extended recovery time and the invasiveness of the procedure. I believe this patient was chosen because she was fairly healthy and no other treatment was effective in reducing her pain and improving her functional mobility. If we had more research on the more aged patients and how to best treat them, surgeons may begin to change their minds and many of our patient’s lives could be transformed into something they no longer thought possible.

Reflective Practice

I feel that overall the initial evaluation was thorough and we were able to collect the information necessary to proceed with safe and effective therapy for this patient. However, I believe a clinimetric scale such as the HOOS would have been beneficial to provide information for the rehab hospital regarding how much she had progressed since surgery. I also wish I would have been able to evaluate her before discharge. However, at this facility it was difficult because
we were never sure of the timing when patients were going to be discharged. I think this would have given me the opportunity to practice my evaluation skills an additional time and also show me the exact improvements she had made in those areas.

Looking back on this patient and her treatment, I feel I should have encouraged her even more to ambulate further, sooner. I think my own confidence level kept me from trying to push her. I also feel that I was probably trying to be too nice to her. I wanted my patients to enjoy working with me and I did not want to push her and cause more pain or make her upset with me.

This patient was also seen by occupational therapy (OT) to teach her alternatives to putting her socks on, picking items up off the floor, etc; although, I believe she was only seen for 1 visit. I think it would have benefited her to have another session with OT to practice and really engrain the new ways for performing these daily activities.

This patient was covered under Medicare & Blue Cross for insurance. She was seen for 7 total visits equaling $401.35 in PT services. She was billed 14 units, plus a pre-op visit which was of no charge. The average cost per PT visit was $57.34. The average national cost for a THA is approximately $39,299.22. The question here is, Did the cost of surgery and recovery offset the cost of her, most likely, continual doctor’s visits, pain meds, and shots? Without this surgery her quality of life was going to remain dismal and was only going to worsen. This would have increased the risk of more health issues arising and created more costs in treating those issues. It is impossible to know what the future would have truly held for this patient without the surgery; however, I do believe that her quality of life was greatly improved by having this surgery.

I thought the price for PT would have been much higher. However, for only $400 she was taught how to correctly get out of a bed, a chair, get to and from the bathroom and to walk. I
think these small tasks are often taken for granted until the day one is unable to do so on one’s own. To have these functional activities returned to me and to be able to perform them safely for $400 would be worth it to me.

I do not think that we could have reduced her PT bill. She definitely needed to be seen twice a day. Due to her lack of motivation, she could not be trusted to take the initiative to exercise or ambulate on her own. I only wish I would have tried harder to motivate her to ambulate further because that may have given us the chance to try the stairs once before going to the rehab hospital. This may have helped shorten her hospital stay at rehab.

This case was a great opportunity for me to learn how to encourage my patients to push themselves and to do things they do not wish to do. I believe there is a fine line between pushing a patient too hard and not pushing hard enough. I would rather error on the side of caution but I also want to be an effective PT who knows each individual’s limits. I think additional research on patients who are above the average age, and actually included in the risk factor categories would greatly benefit surgeons and therapists to improve their quality of care.
REFERENCES


