The Role of Physical Therapy in Improving Physical Functioning of Renal Patients

Thomas F. Pianta

Although not traditionally a part of the dialysis team, physical therapists can play an important role in improving the quality of life for dialysis patients. Physical therapists are trained to evaluate the presence of a functional problem such as back pain, muscle weakness, limited range of motion, balance disorder, alteration in gait, joint pain, neuropathic pain, sensory disturbance, loss of functional mobility, or alteration in posture. Many of these conditions are prevalent in the dialysis population. This article describes how a patient is referred to physical therapy, and once referred, how the patient is evaluated and treated, including goal setting and progression. It is thought that early referral of dialysis patients to physical therapy may prevent some of the functional deterioration typically seen in this population. The incorporation of physical therapy as part of the routine treatment plan may help dialysis staff to address many of the regular nonspecific complaints of fatigue, malaise, pain, and discomfort commonly experienced by dialysis patients.

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Although not traditionally a part of the dialysis team, physical therapists can play an important role in improving the quality of life for dialysis patients. Exercise has been shown to have a positive effect on many metabolic parameters of the dialysis patient. The physical therapist is trained in a variety of techniques that can assist a wide variety of patients, from the highly active 18-year-old soccer player to the 85 year old with diabetes and a below-the-knee amputation. The physical therapist is trained to assess patients’ physical functioning, develop realistic goals for functional achievement (short and long term), and initiate individualized interventions to meet these goals. As the patient’s condition improves, the therapist re-evaluates the goals and advances the program. Physical therapy (PT) has been reported to be effective in improving functional impairment scores in patients with end-stage renal disease (ESRD) hospitalized for rehabilitation. These patients were hospitalized for rehabilitation owing to general weakness, amputation, or cerebrovascular accident. Compared with patients with normal renal function, the dialysis patients had more impairment at the start of rehabilitation but made similar gains in response to the rehabilitation program. At discharge, however, their functional impairment scores remained lower than nondialysis patients. This suggests a need for continuation of PT as a part of the outpatient treatment, as many are discharged to home settings.

Bohanon et al reported significant functional limitations in stair climbing, gait speed, muscle strength even in hemodialysis patients who were on the list for transplantation. Although the patients in this report were probably among the “best” dialysis patients (i.e., they qualified for transplantation), they still exhibited significant impairments in functioning. Those who did not qualify for transplantation may be even more impaired in terms of physical functioning.

The frequent complaints of weakness, difficulty with ambulation, fatigue, decreased range of motion, pain, and difficulty with activities of daily living are all indications for a PT referral. Other common comorbidities of renal disease such as osteopenia, neuropathy, amputation, stroke, and heart disease (or prevention thereof) may also benefit from a referral to PT. Although the nephrology team may not be “in tune” to what the physical therapist does, it is important for them to realize that there are professionals trained to address the multiple needs of the dialysis patient—those newly diagnosed, on hemodialysis, peritoneal dialysis, and even after transplant. Thus, PT should...
be considered in the overall patient care of those with renal disease. The purpose of this review is to help members of the nephrology care team better understand the role of PT in the care of ESRD patients. Specifically, the indications for referral to PT is reviewed, with an emphasis on the skills and strategies the therapists bring to bear on the problems common to dialysis patients. The process of PT assessment, establishment of treatment goals, treatment strategies, and progression are discussed. An overview of PT is shown in Figure 1.

### Physical Therapy Training

Physical therapists have either undergraduate or graduate training that consists of a curriculum rooted in physiology, anatomy, and neuroscience, as well as on site clinical training in direct patient care. A common misperception is that physical therapists are only trained to work with orthopedic, musculoskeletal, or neurologic disorders. In reality, PT training includes treatment of the patient with multiple medical problems, encompassing such problems as immobility, deconditioning, as well as specific training on metabolic disease and its effects on other systems. Clinical internships in hospital settings are required in all PT programs. Therapists are trained to evaluate the presence of a functional problem, such as back pain, muscle weakness, limited range of motion, balance disorder, alteration in gait, joint pain, neuropathic pain, sensory disturbance, loss of functional mobility, or alteration in posture, among others. The therapist then determines which physiological system is causing the problem, and develops a physical intervention to improve the problem.

### Types of Problems Addressed by Physical Therapy

PT can address a wide variety of problems from simple to complex. Sometimes the problem is simple. For example, the patient is limping and the therapist notes a leg-length discrepancy. The therapist then prescribes (and, in some cases, designs and fabricates) the necessary orthotic to eliminate the problem. Many times, however, long-term intervention is required for the patient to optimize function-

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**Figure 1.** Physical therapy overview
tion, a PT assessment would note this, and the treatment program would consist of teaching the patient to use other feedback mechanisms (vision or tactile upper extremity feedback from a cane) to adapt to the loss of proprioception. This type of functional adaptation is the primary role of the physical therapist, and most dialysis patients encounter some problem that PT may be able to help.

Many dialysis patients have comorbidities that alter their ability to function. Physical therapists are trained to provide evaluations and treatments for the following common problems experienced by dialysis patients (Table 1).

### Deconditioning

The physical therapist (or an exercise physiologist) can perform exercise testing to determine the patient’s tolerance to exercise. An individualized program is then developed, based on the test results. Because many dialysis patients cannot get to an exercise facility, a home exercise program can be designed by the therapist according to the prescribed parameters.

### Gait Problems

Because general deconditioning may result from gait problems (or cause them), PT may be needed to determine what specific functional component needs to be addressed to normalize the gait. Gait may be altered because of loss of balance, proprioception, strength, amputations, or neurologic events (eg, stroke, neuropathy). The significance of the loss of lower extremity function (as measured by gait speed,) has been described by Guralnick et al, who showed that in the elderly, those with significantly impaired gait speed had a 33% chance of suffering a disability that would impede their ability to perform activities of daily living (ADLs). Gait deficits may require the prescription of an assistive device such as a cane or walker, the design of an orthotic for footdrop, or a program to strengthen weakened muscle groups. In addition to prescribing the proper device or orthotic, it is the responsibility of the physical therapist to instruct the patient in its use. Balance and coordination training are additional tools used in the treatment of altered gait.

### Balance

Alteration in balance, including gait disturbance, altered posture, and frequent falling is often encountered by the ESRD patient. These may be due to central or peripheral neurologic deficits, muscle weakness, visual deficits, or vertigo. Vertigo secondary to vestibular dysfunction, such as benign paroxysmal positional vertigo, common in the elderly, can be treated with canalith repositioning maneuvers, often curing the vertigo. Peripheral muscle weakness can be treated with strengthening, and/or orthotic and assistive device prescription. Central balance deficits can often be addressed by using adaptation strategies.

### Muscle Weakness

The physical therapist can design specific exercises for specific muscle groups. Such programs are designed based on the individual strength and are gradually advanced to expose the muscles to progressive overload and stimulate muscle strength gains. This can be done using manual resistance from the therapist, hand/ankle weights, resistance bands, isometric exercise, or training machines. The patient can certainly perform specific exercises independently, or the therapist may train a family member to assist by providing manual resistance. Even the most frail of elderly can achieve increases in muscle strength and im-

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### Table 1. Common Problems Encountered in the Dialysis Population that May Be Effectively Addressed by Physical Therapy

- General deconditioning
- Gait problems
- Balance problems
- Muscle weakness
- Neuropathy
- Amputations
- Loss of range of motion
- Pain control
- Seating/positioning problems
- Wound care
- Pulmonary complications
- Peripheral vascular disease
provements in overall functioning through resistance exercise training.\textsuperscript{14,15}

**Neuropathy**

Many dialysis patients suffer some form of peripheral neuropathy. The level of disability from this complication can range from mild paresthesias to muscle weakness and severe pain. PT application of such devices as transcutaneous electrical nerve stimulation (TENS) for pain re-education or functional electrical stimulation for muscle re-education in cases where function has been affected by muscle weakness/disuse can be helpful techniques in managing these patients. Use of TENS in peripheral neuropathy appears to help alleviate pain after the TENS unit is off, possibly owing to circulating endorphins.\textsuperscript{16}

**Amputations**

Physical therapists are highly skilled at assessing the functioning of prosthetics and orthotics. The therapist can work with the prosthetist/orthotist to alter the device as necessary to improve the patient's function and comfort. The therapist is also responsible for teaching the patient to use the prosthesis correctly and should re-evaluate the prosthesis regularly to ensure that it continues to function properly. This may be especially important for dialysis patients, who experience significant weight shifts (fluid or muscle wasting) or who may be prescribed a prosthesis as their kidneys are failing (when edema is common). After initiation of dialysis and subsequent loss of fluid, the prosthesis may need to be refitted and/or modified. Likewise, if the patient loses significant muscle mass during a time of prolonged inactivity, the prosthesis prescribed previously may need re-evaluation and modification.

**Loss of Range of Motion**

Many dialysis patients experience significant loss of flexibility and range of motion (ROM) around major joints. This can seriously impact their ability to perform ADLs and self-care, as limited ROM will affect most basic movements, such as reaching, lifting, bending, and stooping. This loss in ROM may be the result of limited activity, but also may be related to fluid shifts, neuropathy, cramping, and other factors. Many patients are told not to use their fistula arm when the access is placed. This often results in "frozen shoulder," because the patient stops using the entire arm altogether. Also, most patients do not move for the entire time of their dialysis treatment, resulting in significant muscle stiffness, and unless exercises are done to prevent this, over time the patient will lose flexibility. The physical therapist has specific training to increase ROM by determining if the loss is from pain, muscle, or joint. Different manipulative techniques are then used to increase the ROM at the actual restricted point without stressing the surrounding tissue. The therapist can give instructions on exercises that can be done independently at home, before, during, and after the dialysis treatment, and at other times when patients may be confined to bed rest. Increasing ROM may improve overall well-being and mobility and, in conjunction with strengthening and endurance conditioning, may result in improvement in overall fitness.

**Pain Control**

Pain is common in the dialysis population and may be of musculoskeletal, neuropathic, and/or orthopedic origin, any of which the physical therapist is trained to treat. Treatment methods include manual therapy, such as a massage or joint mobilization; modalities such as traction, heat, ultrasound, cold, or TENS positioning; and exercise. Often joint immobility arising from disuse results in pain on use. Much of the dialysis-related pain could be the result of disuse and immobility.

**Seating Assessment**

Most patients who require wheelchairs will require them for a long time, if not permanently. The physical therapist will assess the need for seating options, such as pressure relief cushions, which may be important for patients with altered sensation.

**Wound Care**

Some physical therapists specialize in the treatment of wounds. This knowledge base includes a strong emphasis on dressing types, debridement, and hydrotherapy. Therapists often work closely with nursing to determine
the most appropriate treatment for difficult wounds. Such input on wound care could be helpful for the dialysis nurses, who may not have adequate time to assess wounds or the resources to adequately treat wounds. The high numbers of diabetic patients on dialysis who have significant wound problems could justify the use of physical therapists for this specialized care.

**Pulmonary Complications**
Dialysis patients with pulmonary complications may benefit from chest PT. This technique is effective in the acute clearing of pneumonia, and is also quite useful in preventing future pulmonary complications and improving the overall pulmonary hygiene of the patient.

**The Physical Therapy Referral**
In most states, a referral from a physician is required for PT. Even in states that do not require a referral, most third party payers require a referral for reimbursement. Once a referral for PT has been initiated, the PT treatment program can be divided into three distinct parts: evaluation, treatment, and reassessment.

**Evaluation**
The PT evaluation consists of a thorough medical history and multiple system assessments, including motor and sensory, balance and coordination, gait, ROM, strength, vital signs, physiological responses to exercise, and as indicated, wound assessment. All data are documented, and a PT diagnosis is determined. The PT diagnosis is used for the purpose of documenting the problem list of the patient and setting of goals. For reimbursement purposes, relevant medical ICD-9 codes are used, but the code used must be an accepted code for the PT treatment being applied. For example, a dialysis patient may be receiving PT for exercise (Current Procedural Terminology code 97530) resulting from muscle weakness would use 728.9, the code for muscle weakness, not the code for renal failure. Once the diagnosis has been identified, goals for therapy are set and a treatment plan can begin.

**Treatment**
PT treatment is usually initiated during the evaluation visit. The physical therapist has many treatment tools.

**Therapeutic Exercise**
The three main grades of strengthening exercise used by physical therapists are passive, assistive, and resistive. Passive exercise involves the physical therapist moving the extremity through the ROM. Assistive exercise refers to the patient providing some of the force required while the therapist makes up the difference and completes the movement. In resistive exercise, the therapist applies manual resistance to the patient who can already complete full ROM independently. The level of resistance provided by the physical therapist depends on the level of the patient and treatment goals.

**Conditioning**
The physical therapist can prescribe cardiovascular conditioning to improve peripheral response to exercise, decrease claudication, and/or improve exercise tolerance. Specific techniques include upper and lower extremity ergometry (cycling), ambulation, aquatic therapy, and other aerobic modes of training. The mode of training, frequency, intensity, and duration are all individualized according to the level of the individual; and the progression is gradual according to the individual tolerance.

**Therapeutic Modalities**
Ultrasound can be applied for deep heating application such as pain reduction and improving tissue extensibility for stretching. Topical heat can be applied for the same reasons at the surface level. Ice and other cryotherapies can be applied in the acute stages of any soft tissue injury to reduce inflammation and pain. Traction can be used to stretch soft tissue and ligaments along the vertebrae.

**Manual Therapies**
Therapists often use manual traction and mobilization of the soft tissue or joints to decrease
muscle guarding (inappropriate and fatiguing contraction of the muscles surrounding an injured area for the purpose of stability, which is normal in the acute stage, but if continued, leads to pain and abnormal spine mechanics). Manual traction and mobilization can also be used to increase ROM and decrease pain. They are quite useful tools in the management of joint and low back pain and are unique to PT practice.

**Assistive Devices**
Prescription of appropriate assistive devices requires serious consideration. There are different indications for the use of a cane, a three point cane, a walker, a rolling walker, or wheelchair. Functional outcomes can be determined by the type of assistive device that is prescribed. It is the physical therapist’s responsibility to know which devices are indicated and appropriate for a given dysfunction. Although it is not readily recognized, patients may have entirely different functional outcomes if, for example, they receive walkers, when they should have received rolling walkers. Thus careful consideration must be given to the starting assist device and to the progression away from the use of assist devices (if possible). Teaching and training in the use of a particular assistive device will increase patient confidence in its use and facilitate progress toward independent ambulation.

**Balance and Coordination Training**
The use of verbal, visual, and tactile feedback improves balance and coordination. Therapists use touch, positioning, and mirrors as necessary to achieve improvement in these areas.

**ADL Training**
Both physical therapists and occupational therapists are trained to assist patients in adapting to loss of physical function to be independent in ADLs. Functional adaptation may include the use of assist devices such as sliding boards, gripping and reaching devices, long-handled scrub brushes, devices that assist in donning clothing, and holding eating utensils. Teaching in wheelchair transfers (ie, from wheelchair to bed or chair) can be an important part of ADL training.

**Reassessment**
During each treatment session, the problem is reassessed and documented. Goals are re-set for the short term, and the treatment plan is modified based on the patient’s progress.

**Example of a PT Treatment Plan**
A possible treatment plan for an individual with gait instability is as follows:

- **Problem:** Gait abnormality (medical diagnosis)
- **Definition:** Alteration in normal gait pattern
- **Cause (and physical therapy diagnosis):**
  - Trendelenburg limp, left leg; patient has 3+/5 gluteus medius strength on right
- **Treatment Plan:**
  1) Identify problem to patient, and, using feedback such as postural mirrors, attempt to relearn normal gait during a functional movement.
  2) Strengthen the right gluteus medius using:
     a) Manual resistance exercises
     b) Standing exercises and sidelying exercises
  For strengthening, the muscle can be taken out of a functional context and given resistance to build up strength. This can be done using gravity, weights, or the manual resistance offered by the therapist. In the case of the patient who does not even have antigravity strength, the therapist can move the patient into the antigravity position and help strengthen the muscle to hold it there.
  c) Home exercise program: Once the patient can perform antigravity exercises, a home exercise program can be developed to continue the strengthening outside of the PT clinic. The gait exercises
can also be done at home. The most effective programs are those specific exercises that combine the functional context and the isolated resistive exercise.

Treatment can be as frequent or infrequent as each case dictates depending on the level of understanding of the patient and the progress achieved. Those who require a lot of instruction typically need more frequent treatments.

### Setting Physical Therapy Goals and Assessing Progress

The purpose of PT is not to see the patient for a predetermined period, but rather to set specific, obtainable, measurable goals, and progress the patient toward achieving these goals. After long-term goals are achieved, the patient is discharged. PT treatment plans are designed around both short-term and long-term goals. After obtaining baseline evaluation data, the therapist makes a judgment about what the patient can ultimately achieve through PT treatments. This is the long-term goal. To make this goal attainable, it is broken into distinct, reachable, and measurable portions. These are the short-term goals. Long-term goals may cover a time frame of a few months, whereas short-term goals cover a period of a few days to weeks. This continual process of setting and re-evaluating goals serves as a built-in quality assurance mechanism for the PT treatment plan.

Using the example of a gait instability, the therapist might use the following short-term and long-term goals to monitor a patient’s progress throughout the treatment plan:

#### Physical Therapy Problem: Gait Instability

**Cause**

Trendelenburg Limp on Left Lower Extremity

**Goals**

*Long-term goal.* Patient will ambulate community distances independently without a limp (ie, >300 feet).

*Ambulation short-term goal #1.* Patient will ambulate 75 feet on a level surface with a standard cane with contact guard assistance in 1 week.

If this goal is met, new short-term goals are established, such as: Patient will ambulate community distances (>300 feet) on all surfaces, indoors and outdoors, using a standard cane and verbal assistance, in 1 week.

For specific portions of the treatment plan, such as strengthening and home exercise, other short-term goals are made:

*Muscle strengthening short-term goal #1.* Patient will improve strength in left gluteus medius to 4+/5 in 2 weeks.

*Muscle strengthening short-term goal #2.* Patient will be independent in performing home exercise program in 1 week.

Again, if these goals are met, additional short-term goals are set until the short-term goal is the long-term goal.

*Ambulation short-term goal #2.* Patient will ambulate community distances without a limp, independently in 2 weeks.

Using daily reassessment tools ranging from simply observing the gait to using quantified biofeedback analysis for balance, the therapist can continuously judge the patient’s progress toward these goals and determine if progress is being made or if the goals need to be readjusted owing to lack of progress.

The physical therapist includes the patient as an active participant in the establishment of goals as much as possible. Because PT requires the conscious cooperation and participation of the patient, patients must share in identifying their rehabilitation needs and play an integral role in determining their goals. This is especially true of the hemodialysis population. PT cannot eliminate the need for dialysis, but it may improve the patient’s quality of life. The patient’s role in the goal setting process is thus to help the therapist define what “quality of life” means to the patient. If this definition of quality requires a functional improvement amenable to PT treatment, the goals will be more meaningful to both the therapist and the patient and will be much more likely to be met. Physical therapists can also dramatically improve motivation by knowing what the patient likes to do. For example, if a hemodialysis patient was once an avid golfer but has not golfed for some time owing to weakness or lack of endurance, the therapist can structure
the treatment plan with golfing activities incorporated into the program. Not only does this make the treatment plan more functional, it makes it more enjoyable and relevant for the patient, thus increasing compliance. However, if the patient’s only goals are to sit and watch his or her grandchildren play, PT may be needed only to improve the patient’s cardiopulmonary status to prevent further disability.

What Information Is Given to the Patient on Discharge?

Once the goals of PT have been met, the patient is discharged from the service. The patient is usually given a written home exercise program to continue independently after discharge to maintain function. The patient is given the option of reinstituting PT in the future if additional problems arise, with a referral from their physician. Dialysis patients who are given programs to follow at home (either after discharge, or during their ongoing PT treatment) should be reminded and encouraged by the dialysis staff to continue to work on them. This regular follow-up would be an important linkage of the PT treatment to the dialysis treatment, with the entire health care team working to encourage the patient toward functional improvement.

How Can a Physical Therapy Program Be Implemented in the Dialysis Population?

Patients may access PT through a variety of clinical options. PT is performed in outpatient clinics; inpatient clinics such as acute care hospitals, rehabilitation hospitals, and nursing homes; and home health programs.

The physical status of dialysis patients and goals of PT will determine which of these facilities is most appropriate. The range of physical functioning in dialysis patients is great, and the PT setting will differ based on several factors such as severity of functional limitations, patient scheduling, and goals of PT. Finding the “best fit” for treatment can be a significant challenge.

For highly functional dialysis patients who are still working, scheduling PT may pose a problem. For severely disabled patients, reimbursement of home health PT requires the patient to meet the definition of “home-bound,” and these patients often refuse outpatient PT owing to fatigue or transportation difficulties if they are not deemed eligible for home PT. Outpatient PT in a physical therapy clinic is difficult for in-center dialysis patients owing to scheduling and transportation problems. Inpatient PT at rehabilitation centers (acute care hospitals, rehabilitation hospitals, or nursing homes) is typically available only to the most severely disabled.

Depending on the level of physical dysfunction, and thus the PT goals, treatment duration differs. The young peritoneal dialysis (PD) patients may require only two sessions to develop an independent home exercise program, whereas more severely debilitated hemodialysis (HD) patients may require months of PT to restore functioning.

Referrals to a specific delivery method for PT must therefore consider the following:

1. Severity of patient’s functional disability: If the patient cannot ambulate because of weakness, an inpatient rehabilitation stay may be appropriate. Outpatient hemodialysis patients can be directly admitted into a rehabilitation facility if necessary. If they are in an acute care facility for medical issues, therapy may help speed their recovery and discharge.

2. Type of dialysis: Those patients undergoing dialysis at a free-standing HD unit may need home health to access PT. Peritoneal dialysis patients may best be able to access PT on an outpatient basis at a PT clinic.

3. Goals of rehabilitation: What the patient wants to achieve from PT can dictate where the PT takes place. The patient’s equipment needs vary with the functional goals and must be considered in accessing the therapist. If a patient requires use of several modalities, then home PT and/or independent home exercise may not be appropriate, and the patient will have to access PT on an outpatient basis at a medical facility.

The significant need for PT in dialysis patients and the current system of PT delivery may require creative interactions between the physical therapist and the dialysis clinic. Some dialysis clinics have contracted with PT to see
their patients at the dialysis center. Although this may require extra efforts (ie, state inspection, billing challenges, providing designated space for the PT treatments), patients who are in greatest need of PT will have greater access to it. Such an arrangement also increases the awareness of the dialysis staff of the role of PT, and there is a greater chance of having PT incorporated as a part of the routine dialysis care instead of something separate and independent.

Other Rehabilitation Team Members

The occupational therapist (OT) is trained in many similar skills as the physical therapist. The OT is more specifically trained for splinting, cognitive retraining, ADLs, and hand therapy. Dialysis patients who have experienced neurological trauma requiring training for ADLs, feeding, and other skills would benefit greatly from OT services. Any dysfunction of the use of the hand resulting from the dialysis access may also be positively treated by OT.

The speech therapist is trained to manage speech, hearing, and swallowing disorders. Patients with neurological trauma may benefit from work with a speech therapist.

Exercise physiologists are trained to work with deconditioned individuals, and most who are clinically trained have experience working with patients who are at high risk for, or have known, cardiac disease. They are able to develop individualized programs for both muscle strengthening and cardiovascular endurance training for severely deconditioned patients and often will work in conjunction with PT.

Recommendations for Making Physical Therapy a Part of the Dialysis Treatment Team

Despite all of the benefits of PT to dialysis patients, it remains an underutilized service. The primary reasons are lack of physician referral and lack of patient enthusiasm. Long-term hemodialysis patients may see changing their functional status as an insurmountable task. However, if PT is incorporated as a standing order for all new dialysis patients, it may be possible to prevent some of the functional deterioration typically seen in this population. Likewise, if physical functioning is assessed routinely by the dialysis team, problems that will certainly arise over time, such as reduced ability to ambulate, problems with prostheses, increased risk of falls, and difficulty in transfers, will be identified; and a referral can be made in a timely manner.

Several PT related, “common-sense” things can be done in the unit that might reduce some problems for the patients. These include providing lumbar support during dialysis treatment, ensuring neck support during the dialysis treatment, having the patient change position at regular intervals throughout their treatment, providing information and encouragement for stretching exercises at the beginning and end of the treatment (and possibly during), and obtaining a PT referral for any patient who has difficulty with transfers and/or ambulation.

The dialysis team can incorporate PT into their treatment plan by using physical therapists and/or exercise physiologists as consultants. Dialysis team members can be trained by physical therapists to run exercise classes, teach biomechanical principles, and to know when to refer specific deficits for individual PT consultations. Physical therapists can provide literature on exercise for patients, produce videos for exercise training, and come to dialysis facilities for patient classes or individual sessions.

Therapists can also be employed by dialysis corporations, as therapy is a billable service to Medicare, Medicaid, and private insurance. The dialysis companies could contract therapists to run clinics and classes for patients, and wellness clinics for staff as well. The presence of a physical therapist on the dialysis team could help improve outcomes for the center and, therefore, quality of care. By having the therapist interact directly with the nephrology team, individual patients’ needs could be addressed sooner, and ultimately, the entire team could become more knowledgeable in the rehabilitation field.

Summary

PT can be a useful tool for the dialysis clinician. This article has discussed the training of
physical therapists and the scope of practice, the specific PT needs of dialysis patients, how the treatment plan is structured, and how to incorporate PT into the dialysis care team. We need only observe our patients’ posture and gait when they walk (or shuffle) in and out of the dialysis clinic or office to recognize the need for PT. It may be that many of the regular nonspecific complaints of fatigue, malaise, pain, and discomfort, etc are not an inevitable part of the disease and/or treatment, but may be easily treatable and eliminated or improved by a referral to a PT professional.

References