Exam Performance Feedback

Exam: Physical Therapist Assistant
Tested: January 1, 2014 for VA

SAMPLE CANDIDATE
124 WEST STREET SOUTH
ALEXANDRIA, VA 22314
USA

<table>
<thead>
<tr>
<th>Scores by Content Area</th>
<th>Your Score</th>
<th>On Track to Pass Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Items</td>
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<td>Physical Therapy Data Collection</td>
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<tr>
<td>Diseases/Conditions that Impact</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>Effective Treatment</td>
<td>Interventions</td>
<td>46</td>
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<tr>
<td>Non-System Domains</td>
<td>31</td>
<td>14</td>
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</tbody>
</table>

What does “Retake Range” mean? The range is an estimate of your range of scores if you took other forms of the NPTE with different questions without additional preparation. Your average score could be as low as the lowest score in the range or as high as the highest score. If the highest number in the retake range is below 600, you should devote additional time studying those particular content areas.

Does a scale score of at least 600 within a Content Area or Body System mean that I passed that area? A 600 scale score within an area does not mean that you passed that area, since the NPTE is not delivered in Content Area or Body System sections. The scale scores are provided to help you see your relative performance in a given area, taking into account the difficulty of the questions for that area.

What does “On Track to Pass Score” mean? This is the number of items that you would likely need to get correct in a given area so that your score in that area would be at least 600. The difference between your score and the On Track to Pass Score will give you an idea of how much better you need to do in each area to achieve a 600 scale score in that area. You do not need a 600 in each Content Area to pass the test; you can make up for a lower score in one area with a higher score in another, but if you get a 600 in each area you will pass.
## Scores by Body System

<table>
<thead>
<tr>
<th>Body System</th>
<th>Total Items</th>
<th># Items Correct</th>
<th>Percent Correct</th>
<th>Scale Score</th>
<th>Retake Range</th>
<th># Items Correct</th>
<th>Percent Correct</th>
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<tbody>
<tr>
<td>Cardiovascular/Pulmonary and Lymphatic Systems</td>
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<td>44%</td>
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<tr>
<td>Neuromuscular and Nervous Systems</td>
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<tr>
<td>Other Systems</td>
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### Scores by Body System

![Scores by Body System](image)

**How should I use the Scores by Body System portion of this report?** You can interpret these scores in the same way you interpreted the scores by Content Area. If the highest number in the retake range is below 600, you should devote additional time studying those particular body systems.

## Scores by Section

<table>
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<th>Total Items</th>
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<th>Scale Score</th>
<th>Retake Range</th>
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<td>567</td>
<td>526-608</td>
<td>23</td>
<td>62%</td>
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### Scores by Section

![Scores by Section](image)

**How should I interpret the information provided in the Scores by Section portion of this report?** The scores in this table may help you to determine if you lost concentration or experienced fatigue during the test. Scores by Section should be interpreted with some caution, since difficulty by section may vary slightly, but big differences between sections might suggest that your concentration or energy levels varied during the test.
Example Questions

Cardiovascular/Pulmonary & Lymphatic Systems

A patient reports dizziness. To obtain the best measurement of this patient's blood pressure, the diastolic pressure should be measured when the sounds of pulsation:

A) end.
B) change rate.
C) change pitch.
D) begin.

Diastolic pressure is measured when the sounds of pulsation end and it is indicative of the resting phase of the heart. Change in rate of pulsation is indicative of changes in heart rhythm. Change in pitch occurs at the beginning and end of the pressure cycle and corresponds either with diastolic or systolic pressure. Systolic pressure is measured when the sounds of pulsation begin.

A patient who hyperventilates is MOST likely to exhibit which of the following signs?

A) Tremors
B) Irregular pulse
C) Dizziness
D) Cyanosis

Dizziness occurs with hyperventilation due to decreased carbon dioxide exchange. Tremors and irregular pulse are not associated with hyperventilation. Cyanosis occurs with lack of oxygen and is not associated with hyperventilation.

Musculoskeletal System

In testing the strength of the left external abdominal oblique and right internal abdominal oblique muscles, the physical therapist assistant should instruct the patient to flex the trunk and:

A) rotate the thorax to the right only.
B) rotate the thorax to the left only.
C) rotate the thorax to the left and the right.
D) maintain the thorax in neutral midline.

The left external oblique and right internal oblique cause thorax rotation to the right; therefore, flexion and rotation to the right would test the strength of those muscles.

When strengthening the hamstrings, maximum resistance from gravity occurs when the patient is:

A) prone with the knee flexed at 45°.
B) standing with the knee flexed at 90°.
C) prone with the knee flexed at 120°.
D) standing with the knee flexed at 120°.

Maximum resistance from gravity occurs when the patient is standing and the knee is at 90°.

Neuromuscular & Nervous Systems

A 7-year-old patient with a history of a lesion in the basal ganglia secondary to asphyxia will MOST likely demonstrate which of the following movement problems?

A) Ataxia
B) Athetosis
C) Spasticity
D) Hypotonia

Athetosis results from deficits in the cortical-basal ganglia-thalamic loop. Ataxia results from deficits in the cerebellum, not the basal ganglia. Spasticity results from deficits in the cerebellum, not the basal ganglia. Hypotonia has not been correlated with basal ganglia lesions.
A patient with complete T10 tetraplegia has been progressing well with a course of rehabilitation and desires to walk at least household distances. Which muscles must be functioning AT LEAST at grade Fair (3/5) for the patient to continue?

A) Abdominals and erector spinae  
B) Abdominals and gluteals  
C) Gluteals and erector spinae  
D) Erector spinae and quadriceps

The upper abdominals and erector spinae must be at least Fair (3/5) in strength to compensate for absent hip extension and lower extremity motor function. The gluteals and quadriceps are not innervated with a T10 injury.

Which of the following head positions is MOST appropriate to facilitate normal motor control in a child with a severe asymmetric tonic neck reflex?

A) Extended  
B) Maintained in the midline position  
C) Flexed  
D) Rotated away from the direction the head is most likely to assume

The midline position eliminates stimulus for asymmetric tonic neck reflex while allowing the best positioning for function. Neck flexion and extension are less functional positions to facilitate normal motor control and rotation is a stimulus for the asymmetric tonic neck reflex.

Integumentary System

A physical therapist assistant inspects the foot of a patient who has diabetes and notices a darkened area on the plantar surface of the forefoot. The darkened area MOST likely indicates:

A) a high-pressure location.  
B) extreme skin dryness.  
C) a normal callus formation.  
D) an active skin infection.

A sign of prolonged pressure in a patient who has peripheral vascular disease/diabetes is darkening in a specific area, usually over a bony prominence. Skin dryness, normal callus formation, and active skin infections typically do not present as a darkened area, but have other skin changes such as flakiness, superficial thickening, or diffuse reddening of the skin.

What is the OPTIMUM supine position for a patient with burns to the face, neck, chest, axilla, and arms?

A) Roll under the neck, arms in 90° of abduction and in slight lateral (external) rotation, elbows in full extension  
B) Pillows under the head, arms in 90° of abduction and in slight medial (internal) rotation, elbows in 90° of flexion  
C) Head flat on the bed, arms elevated on pillows and at the sides of the body, elbows completely extended  
D) Head of bed elevated 45°, arms in 45° of abduction, elbows in 45° of flexion

Positioning with a roll under the neck, arms in 90° of abduction and in slight lateral (external) rotation, and elbows in full extension would assist with maintaining range of motion and preventing scar contractures. The other positions would not maximize the elongation needed to maintain range of motion after a burn injury.

Equipment & Devices

For a transfemoral prosthesis with a quadrilateral socket, correct fit requires:

A) a channel for the adductor longus tendon in the posteromedial corner of the socket.  
B) a channel for the hamstring tendons in the anteromedial corner of the socket.  
C) weight-bearing through the inferior ischial and pubic rami on the medial rim.  
D) weight-bearing on the ischial flare or seat on the posterior rim

For a transfemoral prosthesis with a quadrilateral socket, correct weight-bearing is on ischial flare. A channel for the adductor longus tendon should be in the anteromedial aspect of the socket. A channel for the hamstring tendons should be in the posteromedial aspect of the socket. Weight-bearing does not occur on the pubic rami.

Therapeutic Modalities

Which of the following conditions is a CONTRAINDICATION for the use of transcutaneous electrical nerve stimulation (TENS) for shoulder pain control?
A) Placement over a fracture site  
B) Total shoulder replacement  
C) Insulin-dependent diabetes  
D) Unstable cardiac problems

*Electrical stimulation around unstable cardiac conditions may be unsafe because electrical stimulation may aggravate an unstable arrhythmia. It is also a precaution to use electrical stimulation for individuals with cardiac disease. While transcutaneous electrical nerve stimulation (TENS) has no clinical effect on diabetes, it can be used for pain management after a fracture or joint replacement surgery.*

**Safety & Protection**

A patient receiving physical therapy after a hip fracture repair falls during a treatment session. The physical therapist assistant's *FIRST* response should be to:

A) *stay with the patient and summon help.*  
B) return the patient to bed and contact the nursing supervisor.  
C) telephone the referring physician.  
D) reassure the patient and then go find the supervising physical therapist.

*The first priority is summoning help and ensuring the patient's safety. Staying with the patient until help arrives ensures the patient's safety and upholds the "Do No Harm" principle. The other options may cause increased harm by moving a potentially injured patient, or should be done after help arrives and the patient is safe.*
NPTE-PTA Test Content Outline, effective January 2013

This test is designed to measure whether or not an examinee has the requisite knowledge required of entry-level physical therapist assistants working under the supervision of a physical therapist. The focus is on the clinical application of knowledge, concepts, and principles necessary for the provision of safe and effective patient care consistent with the principles of best practice.

<table>
<thead>
<tr>
<th></th>
<th># Items Target (Acceptable Range)</th>
<th>Cardiovascular/ Pulmonary &amp; Lymphatic Systems 16.7% Target (Acceptable Range)</th>
<th>Musculoskeletal System 26.0% Target (Acceptable Range)</th>
<th>Neuro-muscular &amp; Nervous Systems 22.0% Target (Acceptable Range)</th>
<th>Integumentary System 4.7% Target (Acceptable Range)</th>
<th>Metabolic &amp; Endocrine Systems 4.0% Target (Acceptable Range)</th>
<th>Gastro-intestinal System 1.3% Target (Acceptable Range)</th>
<th>Genitourinary System 1.3% Target (Acceptable Range)</th>
<th>System Interactions 3.3% Target (Acceptable Range)</th>
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<tbody>
<tr>
<td>Physical Therapy Data Collection</td>
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<td>13 (12-13)</td>
<td>9 (8-10)</td>
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<tr>
<td>Diseases/Conditions that Impact Effective Treatment (28.0%)</td>
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<td>11 (10-11)</td>
<td>10 (10-11)</td>
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<td>4 (3-5)</td>
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<td>15 (15-17)</td>
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</table>

Note that this blueprint covers important entry-level knowledge areas that are reasonably tested using well-constructed multiple-choice items; some important areas are excluded because they cannot be adequately assessed in a multiple-choice format, are better assessed through other elements of the licensing process, are not specific to the scope of work of physical therapist assistants, or assess standards that might vary substantially across situations or practice locations. In addition, some important knowledge areas that are not linked to specific body systems and are not explicitly mentioned in the content outline (e.g., communications skills, teaching and learning techniques) are encompassed by multiple knowledge areas that are included in the content outline and are represented in test content to a greater extent than is apparent from this outline. Feedback on the candidates' performance will be provided for each knowledge area shown in boldface type. Percentages reflect the relative weights within knowledge areas.
<table>
<thead>
<tr>
<th>Domains of Practice (Organized by Content Areas)</th>
<th># Items Target (Acceptable Range)</th>
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<tr>
<td>Physical Therapy Data Collection</td>
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<tr>
<td>Cardiovascular/Pulmonary &amp; Lymphatic Systems</td>
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<td>Neuromuscular &amp; Nervous Systems</td>
<td>9 (8-10)</td>
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<tr>
<td>Integumentary System</td>
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<td>Diseases/Conditions the Impact Effective Treatment</td>
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<td>Genitourinary System</td>
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<td>System Interactions</td>
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<td>Cardiovascular/Pulmonary &amp; Lymphatic Systems</td>
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<td>Equipment &amp; Devices; Therapeutic Modalities</td>
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<td>Neuromuscular &amp; Nervous Systems</td>
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<tr>
<td>Other Systems (Integumentary, Metabolic &amp; Endocrine Systems, Gastrointestinal System, Genitourinary System, System Interactions)</td>
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</table>
PHYSICAL THERAPIST ASSISTANT
LICENSURE/CERTIFICATION EXAMINATION
DETAILED EXAMINATION BLUEPRINT DESCRIPTIONS

CARDIOVASCULAR/PULMONARY & LYMPHATIC SYSTEMS

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of cardiovascular/pulmonary and lymphatic systems tests/measures, including outcome measures, according to current best evidence, and their relevance to information collected from the history and systems review. The category includes the reaction of the cardiovascular/pulmonary and lymphatic systems to tests/measures and the mechanics of body movement as related to the cardiovascular/pulmonary and lymphatic systems. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular/pulmonary systems tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the cardiovascular/pulmonary systems as related to tests/measures
- Movement analysis as related to the cardiovascular/pulmonary systems (e.g., rib cage excursion)

Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the cardiovascular/pulmonary and lymphatic systems in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular/pulmonary systems diseases/conditions and their pathophysiology to carry out the established plan of care
- Lymphatic system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the cardiovascular/pulmonary systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- Pharmacological management of the cardiovascular/pulmonary systems
- Nonpharmacological medical management of the lymphatic system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)

Interventions. This category refers to cardiovascular/pulmonary and lymphatic systems interventions (including types, applications, responses, and potential complications) according to current best evidence, as well as the impact on the cardiovascular/pulmonary and lymphatic systems of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular/pulmonary systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the cardiovascular/pulmonary systems as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the cardiovascular/pulmonary systems
- Secondary effects or complications on the cardiovascular/pulmonary systems from physical therapy and medical interventions used on other systems
- Lymphatic system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the lymphatic system as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the lymphatic system
- Secondary effects or complications on the lymphatic system from physical therapy and medical interventions used on other systems

MUSCULOSKELETAL SYSTEM

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of musculoskeletal system tests/measures, including outcome measures, according to current best evidence, and their relevance to information collected from the history and systems review. The category includes the reaction of the musculoskeletal system to tests/measures and the mechanics of body movement as related to the musculoskeletal system. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the musculoskeletal system as related to tests/measures
- Movement analysis as related to the musculoskeletal system
- Joint biomechanics and their applications
Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the musculoskeletal system in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Muscular and skeletal diseases/conditions and their pathophysiology to carry out the established plan of care
- Connective tissue diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the musculoskeletal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- Pharmacological management of the musculoskeletal system

Interventions. This category refers to musculoskeletal system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the musculoskeletal system of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Musculoskeletal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the musculoskeletal system as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the musculoskeletal system
- Secondary effects or complications on the musculoskeletal system from physical therapy and medical interventions used on other systems

NEUROMUSCULAR & NERVOUS SYSTEMS

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of neuromuscular/nervous systems tests/measures, including outcome measures, according to current best evidence, and their relevance to information collected from the history and systems review. The category includes the reaction of the neuromuscular/nervous systems to tests/measures and the mechanics of body movement as related to the neuromuscular/nervous systems. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular/nervous systems tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the neuromuscular/nervous systems as related to tests/measures
- Movement analysis as related to the neuromuscular/nervous systems

Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the neuromuscular/nervous systems in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular/nervous systems (CNS, PNS, ANS) diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the neuromuscular/nervous systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- Pharmacological management of the neuromuscular/nervous systems

Interventions. This category refers to neuromuscular/nervous systems interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the neuromuscular/nervous systems of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular/nervous systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the neuromuscular/nervous systems as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the neuromuscular/nervous systems
- Secondary effects or complications on the neuromuscular/nervous systems from physical therapy and medical interventions used on other systems
- Motor control as related to neuromuscular/nervous systems physical therapy interventions
- Motor learning as related to neuromuscular/nervous systems physical therapy interventions
INTEGUMENTARY SYSTEM

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of integumentary system tests/measures, including outcome measures, according to current best evidence, and their relevance to information collected from the history and systems review. The category includes the reaction of the integumentary system to tests/measures and the mechanics of body movement as related to the integumentary system. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the integumentary system as related to tests/measures
- Movement analysis as related to the integumentary system (e.g., friction, shear, pressure, and scar mobility)

Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the integumentary system in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the integumentary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- Pharmacological management of the integumentary system

Interventions. This category refers to integumentary system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the integumentary system of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the integumentary system as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the integumentary system
- Secondary effects or complications on the integumentary system from physical therapy and medical interventions used on other systems

METABOLIC & ENDOCRINE SYSTEMS

Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the metabolic and endocrine systems in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Metabolic and endocrine systems diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the metabolic and endocrine systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- Pharmacological management of the metabolic and endocrine systems

Interventions. This category refers to metabolic and endocrine systems interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the metabolic and endocrine systems of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Metabolic and endocrine systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the metabolic and endocrine systems as related to physical therapy interventions, daily activities, and environmental factors
- Secondary effects or complications from physical therapy and medical interventions on the metabolic and endocrine systems
- Secondary effects or complications on the metabolic and endocrine systems from physical therapy and medical interventions used on other systems

GASTROINTESTINAL SYSTEM

Diseases/Conditions that Impact Effective Treatment. This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the gastrointestinal system in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

- Gastrointestinal system diseases/conditions and their pathophysiology to carry out the established plan of care
• Nonpharmacological medical management of the gastrointestinal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
• Pharmacological management of the gastrointestinal system

**Interventions.** This category refers to gastrointestinal system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the gastrointestinal system of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

• Gastrointestinal system physical therapy interventions and their applications for rehabilitation and health promotion according to current best evidence (e.g., positioning for reflux prevention, bowel programs)
• Anatomy and physiology of the gastrointestinal system as related to physical therapy interventions, daily activities, and environmental factors
• Secondary effects or complications from physical therapy and medical interventions on the gastrointestinal system
• Secondary effects or complications on the gastrointestinal system from physical therapy and medical interventions used on other systems

**GENITOURINARY SYSTEM**

**Diseases/Conditions that Impact Effective Treatment.** This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding the involvement of the genitourinary system in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

• Genitourinary system diseases/conditions and their pathophysiology to carry out the established plan of care
• Nonpharmacological medical management of the genitourinary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
• Pharmacological management of the genitourinary system

**Interventions.** This category refers to genitourinary system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the genitourinary system of interventions performed on other systems in order to support patient/client management for rehabilitation, health promotion, and performance across the lifespan.

• Genitourinary system physical therapy interventions and their applications for rehabilitation and health promotion according to current best evidence (e.g., bladder programs, biofeedback, pelvic floor retraining)
• Anatomy and physiology of the genitourinary system as related to physical therapy interventions, daily activities, and environmental factors
• Secondary effects or complications from physical therapy and medical interventions on the genitourinary system
• Secondary effects or complications on the genitourinary system from physical therapy and medical interventions used on other systems

**SYSTEM INTERACTIONS**

**Diseases/Conditions that Impact Effective Treatment.** This category refers to the essential scientific principles and knowledge of diseases/conditions that serve as the foundation for understanding system interactions in the treatment of patients/clients for rehabilitation, health promotion, and performance across the lifespan.

• Diseases/conditions where the primary impact is on more than one system to carry out the established plan of care
• Impact of comorbidities/coexisting conditions on patient/client management (e.g., diabetes and hypertension, obesity and arthritis, hip fracture and dementia)
• Psychological and psychiatric conditions that impact patient/client management (e.g., depression, schizophrenia)
• Nonpharmacological medical management of multiple systems (e.g., diagnostic imaging and other medical tests, surgical procedures)
• Pharmacological management of multiple systems, including polypharmacy

**EQUIPMENT & DEVICES**

This category refers to the different types of equipment and devices, use requirements, and/or contextual determinants, according to current best evidence, as well as any other influencing factors involved in the application of equipment and devices, in order to support patient/client treatment and management decisions for rehabilitation, health promotion, and performance across the lifespan.

• Assistive and adaptive devices
• Prosthetic devices
• Protective, supportive, and orthotic devices
THERAPEUTIC MODALITIES

This category refers to the different types of therapeutic modalities, use requirements, and/or contextual determinants, according to current best evidence, as well as any other influencing factors involved in the application of therapeutic modalities, in order to support patient/client treatment and management decisions for rehabilitation, health promotion, and performance across the lifespan.

- Thermal modalities
- Iontophoresis
- Electrotherapy modalities, excluding iontophoresis
- Phonophoresis
- Ultrasound modalities, excluding phonophoresis
- Mechanical modalities (e.g., mechanical motion devices, traction devices)
- Biofeedback
- Electromagnetic radiation (e.g., diathermy)
- Pneumatic compression modalities

SAFETY & PROTECTION

This category refers to the critical issues involved in patient/client safety and protection and the responsibilities of health-care providers to ensure that patient/client management and health-care decisions take place in a secure environment.

- Factors influencing safety and injury prevention
- Function, implications, and precautions related to intravenous lines, tubes, catheters, and monitoring devices
- Emergency preparedness (e.g., CPR, first aid, disaster response)
- Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)
- Signs/symptoms of physical, sexual, and psychological abuse and neglect

PROFESSIONAL RESPONSIBILITIES

This category refers to the responsibilities of health-care providers to ensure that patient/client management and health-care decisions take place in a trustworthy environment.

- Standards of documentation
- Patient/client rights (e.g., ADA, IDEA, HIPAA)
- Human resource legal issues (e.g., OSHA, sexual harassment)
- Roles and responsibilities of physical therapist assistants in relation to physical therapists and other health-care professionals
- Roles and responsibilities of other health-care professionals and support staff

RESEARCH & EVIDENCE-BASED PRACTICE

This category refers to the application of measurement principles and research methods to make reasoned and appropriate assessment and to the interpretation of information sources and practice research to support patient/client management decisions fundamental to evidence-based practice.

- Knowledge of basic research concepts
- Knowledge of data collection techniques (e.g., surveys, direct observation)