Western Technical College

10524144 Physical Therapist Assistant Principles of Neuromuscular Rehabilitation

Course Outcome Summary

Course Information

Description	Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.
Career Cluster	Health Science
Instructional Level	Associate Degree Courses
Total Credits	4
Total Hours	108

Pre/Corequisites

Prerequisite	10524143 PTA Biophysical Agents
Prerequisite	10524141 PTA Kinesiology 2 OR 10524157 PTA Applied Kinesiology 2
Prerequisite	10524139 PTA Patient Interventions

Textbooks

Umphred's Neurorehabilitation for the Physical Therapist Assistant. 3rd Edition. Copyright 2021. Lazaro, Rolando. Publisher: Slack Inc. **ISBN-13:** 978-1-63091-565-0. Required.

Success Abilities

1. Cultivate Passion: Enhance Personal Connections
2. Live Responsibly: Develop Resilience
3. Live Responsibly: Foster Accountability

4. Refine Professionalism: Act Ethically
5. Refine Professionalism: Improve Critical Thinking
6. Refine Professionalism: Participate Collaboratively
7. Refine Professionalism: Practice Effective Communication

High Impact Practices

1. Community Based Learning Project: a key learning outcome of this course is to connect academic learning and civic development while simultaneously addressing a community partner's needs, interests, or problems.

Program Outcomes

1. Function under the supervision of a physical therapist in a safe, legal, professional, and ethical manner to ensure the safety of patients, self, and others throughout the clinical interaction
2. Demonstrate clear and collaborative communication with patients, families, and health care team
3. Exhibit behaviors and conduct that reflect respect and sensitivity according to physical therapy practice standards
4. Produce documentation to support the delivery of physical therapy services
5. Demonstrate critical thinking skills to implement and modify treatment within a plan of care under the direction and supervision of a physical therapist
6. Perform data collection essential for carrying out the plan of care under the direction and supervision of the physical therapist
7. Perform technically competent, evidence-based physical therapy interventions under the direction and supervision of the physical therapist
8. Educate patients, families, and other health providers
9. Integrate components of operational and fiscal practices of physical therapy service in a variety of settings

Course Competencies

1. Identify location and function of neurological structures which contribute to sensory and motor function

Assessment Strategies

1.1. by answering questions on one or more exams
1.2. by creating diagrams or models
1.3. through case study scenario (oral or written)

Criteria

Your performance will be successful when:

1.1. you identify neurological structures that contribute to motor and sensory function
1.2. you identity location of structures that contribute to motor and sensory function
1.3. you explain the role of neurological structures which contribute to motor and sensory function.

Learning Objectives

1.a. Identify structures in the central and peripheral nervous system.
1.b. Explain function of structures in the central and peripheral nervous system.
1.c. Locate structures of central and peripheral nervous system on diagram or model.
1.d. Identify parts of a neuron including function of each part.
1.e. Explain vascular supply to the brain.

1.f. Identify common motor and sensory tracts, including the motor and sensory information carried on each.
1.g. Identify components of cervical, brachial and lumbosacral plexus.
1.h. Map out the neurologic pathway for voluntary movement.
1.i. Map out the neurologic pathway for a simple reflex.
1.j. Explore signs and symptoms associated with damage to neurologic structures (UMN, LMN lesions, etc).
1.k. Examine reflexes related to the muscle spindle (stretch reflex) and golgi tendon organs, including how to use the reflexes to influence intervention.
1.l. Compare sensory loss patterns for central, cranial nerve, or peripheral nerve problems.

2. Analyze features of posture for the patient with neuromuscular disorders

Assessment Strategies

2.1. by developing an analysis (written, graphic, oral, or three-dimensional model)
2.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

2.1. you accurately identify features of posture in patients with neuromuscular disorders
2.2. you differentiate between typical and atypical features of posture

Learning Objectives

2.a. Describe normal posture in relation to base of support, center of gravity, symmetry, balance.
2.b. Identify common postural deviations associated with neuromuscular disorders.
2.c. Identify postural deviations related to hypotonia, hypertonia, weakness and perceptual disorders.
2.d. Document postural deviations correctly using appropriate medical terminology.
2.e. Examine interventions that may positively impact posture in a patient with a neurological disorder.

3. Analyze features of gait for the patient with neuromuscular disorders

Assessment Strategies

3.1. by developing an analysis (written, graphic, oral, or three-dimensional model)
3.2. by answering questions on one or more exams
3.3. in a skill demonstration

Criteria

Your performance will be successful when:

3.1. you accurately identify features of gait in patients with neuromuscular disorders
3.2. you differentiate between typical and atypical features of gait.
3.3. you accurately describe the status, safety and progression of patient gait.

Learning Objectives

3.a. Describe normal gait in relation to step length, step width, base of support, weight shifting, stride length, trunk control and arm swing.
3.b. Identify gait deviations associated with hypotonia, hypertonia, weakness and perceptual disorders.
3.c. Identify gait deviation in patient with neuromuscular disorder case scenarios including cause for deviations.
3.d. Describe common gait deviations associated with neuromuscular disorders discussed in course (CVA, TBI, CP, etc..).
3.e. Examine assistive/ adaptive devices and orthotic devices that will postively impact gait in a patient with a neurological disorder.
3.f. Explore interventions that may improve gait in a patient with neuromuscular disorders.

4. Examine normal neuromotor development

Assessment Strategies

4.1. through case study scenario (oral or written)
4.2. by creating or developing a diagram or model
4.3. by answering questions on one or more exams

Criteria

Your performance will be successful when:

4.1. you recognize gross motor milestones

4.2. you recognize fine motor milestones
4.3. you recognize righting and equilibrium reactions

Learning Objectives

4.a. Examine primitive reflexes and expected age of observation.
4.b. Explain lifespan concept of development.
4.c. Summarize relationship of cognition and motivation to motor development.
4.d. Examine acquisition and refinement of fundamental movement patterns during childhood.
4.e. Identify gross and fine motor milestones with expected age of acquisition.
4.f. Investigate age related changes in functional movement patterns across the lifespan.
4.g. Summarize typical direction of acquisition of righting reactions.
4.h. Analyze interventions for age related changes that affect posture, balance, and gait in older adults.

5. Incorporate motor control principles

Assessment Strategies

5.1. in a skill demonstration
5.2. through case study scenario (oral or written)
5.3. by answering questions on one or more exams

Criteria

Your performance will be successful when:

5.1. you explain motor control principles and theory
5.2. you employ appropriate interventions applying motor control principles
5.3. you verbalize an explanation of the principles
5.4. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

5.a. Explain motor control.
5.b. Explore theories of motor control including Systems, Hierarchical, and Nashner's model of control.
5.c. Examine the role of sensation in motor control.
5.d. Analyze stages of motor control including mobility, stability controlled mobility and skill.
5.e. Determine the role of experience and feedback to motor control.
5.f. Relate motor control theories to therapeutic intervention using case scenarios.
5.g. Demonstrate facilitation and inhibition techniques to improve motor control.
5.h. Demonstrate use of environment to improve motor control (support surfaces, bracing, visual input, etc.).
5.i. Correlate components of motor control involved in functional posture and movement.
5.j. Investigate factors contributing to lack of motor control in case scenarios and how these factors can be addressed with intervention.

6. Perform neuromuscular intervention techniques for the patient with a CVA

Assessment Strategies

6.1. in a skill demonstration
6.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

6.1. you select the correct equipment and supplies
6.2. you perform all critical steps in the right order
6.3. you position yourself correctly and apply principles of good body mechanics
6.4. you employ appropriate interventions
6.5. you follow safety procedures
6.6. you verbalize an explanation of the process
6.7. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

6.a. Review health records (lab values, diagnostic tests, specialty reports, consults and past physical therapy documentation, including short/long term goals and goal of intervention) prior to carrying out the PT plan of care.

6.b. Perform early functional mobility tasks such as bridging, bridging with approximation, rolling, transfers and scapular mobility for patient with CVA.
6.c. Perform facilitation and inhibition techniques using PNF, neurodevelopmental and systems models for patient with CVA.
6.d. Perform interventions to improve posture in sitting/ standing and gait for patient with CVA.
6.e. Assess response to interventions including compensatory movements observed for patient with CVA.
6.f. Adjust intervention within the plan of care established by the Physical Therapist based upon the patient response to treatment and clinical indications.
6.g. Explain rationale for clinical decision making for progression of the patient that includes current evidence, clinical goals, and patient goals/ values throughout the continuum of care using case scenarios.
6.h. Document intervention accurately, following all federal and state practice act guidelines including appropriate treatment time, units, and billing codes.
6.i. Examine various communication and teaching methods that may be needed for specific patient or caregiver needs.
6.j. Examine adaptive equipment, splints or orthoses that may be used in treatment of CVA.

7. Perform neuromuscular intervention techniques for the patient with a TBI

Assessment Strategies

7.1. in a skill demonstration
7.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

7.1. you select the correct equipment and supplies
7.2. you perform all critical steps in the right order
7.3. you position yourself correctly and apply principles of good body mechanics
7.4. you employ appropriate interventions
7.5. you follow safety procedures
7.6. you verbalize an explanation of the process
7.7. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

7.a. Examine intervention options for patient with TBI in the intensive care unit.
7.b. Explain sensory stimulation for a patient with TBI.
7.c. Review health records (lab values, diagnostic tests, specialty reports, consults and past physical therapy documentation, including short/long term goals and goal of intervention) prior to carrying out the PT plan of care.
7.d. Perform early functional mobility tasks such as bridging, bridging with approximation, rolling, transfers and scapular mobility for patient with TBI.
7.e. Perform facilitation and inhibition techniques using PNF, neurodevelopmental and systems models for patient with TBI.
7.f. Perform interventions to improve posture in sitting/ standing and gait for patient with TBI.
7.g. Assess response to interventions including behavioral and cognitive changes for patient with TBI.
7.h. Adjust intervention within the plan of care established by the Physical Therapist based upon the patient response to treatment and clinical indications.
7.i. Document intervention accurately and thoroughly, following all federal and state practice act guidelines including appropriate treatment time, units, and billing codes.
7.j. Explain rationale for clinical decision making for progression of the patient that includes current evidence, clinical goals, and patient goals/ values throughout the continuum of care using case scenarios.
7.k. Examine various communication and teaching methods that may be needed for specific patient or caregiver needs.
7.l. Examine splints, equipment, adaptive devices or orthoses that may be used in treatment of TBI.

8. Perform neuromuscular intervention techniques for the patient with a SCI

Assessment Strategies

8.1. in a skill demonstration
8.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

8.1. you select the correct equipment and supplies
8.2. you perform all critical steps in the right order
8.3. you position yourself correctly and apply principles of good body mechanics
8.4. you employ appropriate interventions
8.5. you follow safety procedures
8.6. you verbalize an explanation of the process
8.7. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

8.a. Review health records (lab values, diagnostic tests, specialty reports, consults and past physical therapy documentation, including short/long term goals and goal of intervention) prior to carrying out the PT plan of care.
8.b. Perform early functional mobility tasks such as pulmonary exercises, scapular mobility, bed mobility, and transfers for patient with SCI.
8.c. Perform facilitation and inhibition techniques using PNF, neurodevelopmental and systems models for patient with SCI.
8.d. Perform interventions to improve posture in long sitting/ short sitting/ standing and gait if appropriate for patient with SCI.
8.e. Demonstrate wheelchair mobility techniques used with a patient with SCI.
8.f. Assess physiologic response to interventions for patient with SCI.
8.g. Adjust intervention within the plan of care established by the Physical Therapist based upon the patient response to treatment and clinical indications.
8.h. Document intervention accurately and thoroughly, following all federal and state practice act guidelines including appropriate treatment time, units, and billing codes
8.i. Explain rationale for clinical decision making for progression of the patient that includes current evidence, clinical goals, and patient goals/ values throughout the continuum of care using case scenarios.
8.j. Examine various communication and teaching methods that may be needed for specific patient or caregiver needs.
8.k. Examine equipment, assistive technologies, splints or orthoses that may be used in treatment of SCI.

9. Synthesize motor learning principles and techniques

Assessment Strategies

9.1. through case study scenario (oral or written)
9.2. in a skill demonstration
9.3. by answering questions on one or more exams

Criteria

Your performance will be successful when:

9.1. you explain motor learning principles and theory
9.2. you employ appropriate interventions applying motor learning theory
9.3. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

9.a. Explain motor learning.
9.b. Summarize the relationship between motor learning, motor control and motor development.
9.c. Explain the role of experience and feedback in motor learning.
9.d. Analyze phases of motor learning including cognitive, associative, autonomous phase.
9.e. Examine open and closed tasks/ environments.
9.f. Explore theories of motor learning.
9.g. Relate motor learning theories to therapeutic intervention.
9.h. Analyze common factors that interfere with motor learning including how they affect intervention.
9.i. Describe different types of practice.

10. Identify etiology, signs and symptoms and usual course of disease for TBI

Assessment Strategies

10.1. through case study scenario (oral or written)
10.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

10.1. you describe pathology of TBI
10.2. you explain the etiology and risk factors for TBI
10.3. you identify signs and symptoms of TBI
10.4. you describe medical management including pharmacological and surgical interventions and diagnostic testing

Learning Objectives

10.a. Describe etiology of TBI including common mechanisms of injury.
10.b. Use ICF to describe impairments, activity and participation limitations in a patient with a TBI.
10.c. Explore medical intervention for TBI including diagnosis and acute medical management.
10.d. Describe types of closed head injuries.
10.e. Summarize motor impairments associated with TBI.
10.f. Identify communication impairments associated with TBI.
10.g. Examine cognitive and perceptual impairments associated with TBI.
10.h. Identify possible patient emergencies associated with TBI and recommended response.
10.i. Explain the usual course of rehabilitation for TBI including how the plan of care relates to achieving short and long term goals.
10.j. Compare levels of cognitive functioning associated with TBI.
10.k. Identify strategies to improve cognitive deficits.

11. Identify etiology, signs and symptoms and usual course of pediatric neuromuscular disorders

Assessment Strategies

11.1. through case study scenario (oral or written)
11.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

11.1. you describe common pediatric neuromuscular disorders
11.2. you explain the etiology of pathologies of various pediatric neuromuscular disorders
11.3. you identify signs and symptoms of pediatric neuromuscular disorders
11.4. you describe medical management including pharmacological and surgical interventions and diagnostic testing

Learning Objectives

11.a. Describe etiology of pediatric neuromuscular disorders including incidence.
11.b. Use ICF to describe impairments, activity and participation limitations in a patient with a pediatric neuromuscular disorder.
11.c. Explore medical intervention for pediatric neuromuscular disorders including surgical intervention and management.
11.d. Identify role of physical therapist assistant in the management of pediatric neuromuscular disorders.
11.e. Identify motor impairments associated with various pediatric neuromuscular disorders.
11.f. Identify communication impairments associated with various pediatric neuromuscular disorders.
11.g. Examine importance of functional training through the lifespan of a child with a pediatric neuromuscular disorder.
11.h. List possible patient emergencies associated with pediatric neuromuscular disorders, including recommended response.
11.i. Explain the usual course of rehabilitation for a child with a neuromuscular disorder including how the plan of care relates to achieving short and long term goals.

12. Identify etiology, signs and symptoms and usual course of CVA

Assessment Strategies

12.1. through case study scenario (oral or written)
12.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

12.1. you describe pathology of CVA
12.2. you explain the etiology and risk factors for CVA
12.3. you identify signs and symptoms of various types of CVA
12.4. you describe medical management including pharmacological and surgical interventions and diagnostic testing

Learning Objectives

12.a. Describe etiology of CVA.
12.b. Use ICF to describe impairments, activity and participation limitations in a patient with a CVA.
12.c. Explore medical intervention for CVA including diagnosis and acute medical management.
12.d. Define common stroke syndromes.
12.e. Summarize motor impairments associated with CVA.
12.f. Analyze communication impairments associated with CVA.
12.g. Examine cognitive and perceptual impairments associated with CVA.
12.h. List possible patient emergencies associated with CVA, including recommended response.
12.i. Explain the usual course of rehabilitation for a patient with a CVA including how the plan of care relates to achieving short and long term goals.

13. Identify etiology, signs and symptoms and usual course of disease for SCI

Assessment Strategies

13.1. through case study scenario (oral or written)
13.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

13.1. you describe the pathology of SCI
13.2. you explain the etiology and risk factors for SCI
13.3. you identify signs and symptoms of SCI
13.4. you describe medical management of the pathology
13.5. you describe medical management including pharmacological and surgical interventions and diagnostic testing

Learning Objectives

13.a. Describe etiology of SCI.
13.b. Use ICF to describe impairments, activity and participation limitations in a patient with a SCI, including complete and incomplete lesions.
13.c. Explore medical intervention for SCI including diagnosis and acute medical management.
13.d. Define common incomplete injuries.
13.e. Relate segmental level of muscle innervation to level of function in a patient with a SCI.
13.f. Summarize functional importance/ variance of different levels of spinal cord injury.
13.g. List possible patient emergencies associated with SCI, including recommended response.
13.h. Explain the usual course of rehabilitation for patient with SCI including how the plan of care relates to achieving short and long term goals.

14. Identify etiology, signs and symptoms and usual course of disease for adult neuromuscular disease

Assessment Strategies

14.1. through case study scenario (oral or written)
14.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

14.1. you describe common adult neuromuscular diseases
14.2. you explain the etiology of pathologies of adult neurological diseases
14.3. you identify signs and symptoms of pathology of adult neurological diseases
14.4. you describe medical management including pharmacological and surgical interventions and diagnostic

testing

Learning Objectives

14.a. Describe etiology of various adult neuromuscular diseases including incidence.
14.b. Use ICF to describe impairments, activity and participation limitations of various adult neuromuscular diseases.
14.c. Explore medical intervention for various adult neuromuscular diseases including diagnosis and acute medical management.
14.d. Analyze motor impairments associated with various adult neuromuscular diseases.
14.e. Explore communication impairments associated with various adult neuromuscular diseases.
14.f. Identify cognitive and perceptual impairments associated with various adult neuromuscular diseases.
14.g. List possible patient emergencies associated with adult neuromuscular disorders, including recommended response.
14.h. Describe usual course of rehabilitation for a patient with various adult neuromuscular diseases including how the plan of care relates to achieving short and long term goals.

15. Analyze patient response to physical therapy interventions for neuromuscular conditions

Assessment Strategies

15.1. by developing an analysis (written, graphic, oral, or three-dimensional model)
15.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

15.1. you identify expected responses to PT interventions
15.2. you recognize abnormal responses to interventions
15.3. you adjust interventions within the plan of care developed by the PT in response to patient clinical indications
15.4. you recognize when the intervention should not be provided based on changes in the patient status.
15.5. you recognize when the direction to perform the intervention is beyond what is appropriate for a PTA

Learning Objectives

15.a. Summarize expected response to specific physical therapy interventions.
15.b. Assess patients response to physical therapy intervention including notification to physical therapist if needed.
15.c. Adjust intervention within the plan of care established by the physical therapist in response to patient status and clinical indications/ desired outcome.
15.d. Document patient response following all federal, state and facility guidelines.
15.e. Respond to physiologic changes or patient/ client/ environmental emergencies that occur in the clinical setting.
15.f. Recognize when intervention should not be provided due to changes in the patient's status and reports this to the supervising physical therapist.

16. Assess arousal, mentation, and cognition for patient with neuromuscular disorder

Assessment Strategies

16.1. by collecting, organizing and reporting data related to arousal, mentation, and cognition
16.2. in a skill demonstration
16.3. by developing an analysis (written, graphic, oral, or three-dimensional model)
16.4. by answering questions on one or more exams

Criteria

Your performance will be successful when:

16.1. you identify data necessary to perform assessment of arousal, mentation and cognitive function in a patient
16.2. you recognize changes in the direction and magnitude of patient's state of arousal, mentation, and cognition
16.3. data is recorded completely and accurately
16.4. you record data completely and accurately.
16.5. you collect/use relevant data.
16.6. data is relevant
16.7. you identify data sources.

16.8. data sources are identified
16.9. you organize and clearly communicate data results.
16.10. data results are organized and clearly communicated

Learning Objectives

16.a. Define arousal, mentation and cognition.
16.b. Explore screens used to assess arousal, mentation and cognition.
16.c. Perform screens for arousal, mentation and cognition.
16.d. Describe possible changes in arousal, mentation and cognition including possible causes in patients with neuromuscular disorders.
16.e. Document data related to arousal, mentation and cognition correctly.
16.f. Recognizes when change in arousal, mentation or cognition should be reported to the supervising physical therapist.

17. Assess sensation for patient with neuromuscular disorder

Assessment Strategies

17.1. by collecting, organizing and reporting data related to sensory function
17.2. in a skill demonstration
17.3. by developing an analysis (written, graphic, oral, or three-dimensional model)
17.4. by answering questions on one or more exams

Criteria

Your performance will be successful when:

17.1. you identify data necessary to perform assessment of sensory function in a patient
17.2. you recognize absent or altered sensation
17.3. data is recorded completely and accurately
17.4. data is relevant
17.5. data sources are identified
17.6. data results are organized and clearly communicated

Learning Objectives

17.a. Explain sensation including pathophysiology causing changes to sensation.
17.b. Explore screens used to assess sensation.
17.c. Test sensation using dermatome levels.
17.d. Perform assessment of sensation to light touch, sharp/dull, hot /cold, and vibration.
17.e. Document data from assessment of sensation correctly.
17.f. Relate patterns of sensation impairments with neuromuscular disorders.
17.g. Recognize when change in sensation should be reported to the supervising physical therapist.

18. Conduct functional assessments for patients with neuromuscular disorders

Assessment Strategies

18.1. by collecting, organizing and reporting data related to patient function
18.2. in a skill demonstration
18.3. by developing an analysis (written, graphic, oral, or three-dimensional model)
18.4. by answering questions on one or more exams

Criteria

Your performance will be successful when:

18.1. you identify data necessary to perform a patient functional assessment
18.2. data is recorded completely and accurately
18.3. you record data completely and accurately.
18.4. you collect/use relevant data.
18.5. data is relevant
18.6. you identify data sources.
18.7. data sources are identified
18.8. data results are organized and clearly communicated
18.9. you organize and clearly communicate data results.
18.10. data is presented in graphs or charts; graphical representations are accurate and easy to read
18.11. data analysis includes a written description and analysis of the results
18.12. data analysis makes a recommendation based on the results; recommendation is clearly supported by

the data

Learning Objectives

18.a. Explore functional assessment questionnaires, tools and screens to use with patients with neuromuscular disorders, including applicability, reliability and sensitivity of the tests and measures.
18.b. Perform subjective and objective screens and tests to assess function.
18.c. Identify factors contributing to functional movement including factors that may be limiting a functional activity.
18.d. Document data from functional assessment accurately.
18.e. Recommend intervention based on data to improve function related to self-care, work, community, social and education life (if applicable).
18.f. Explore assistive devices/ technology to improve function in patients with neuromuscular disorders, including analysis of availability, cost, precautions, safety factors related to use of devices.

19. Perform balance assessments for patients with neuromuscular disorders

Assessment Strategies

19.1. in a skill demonstration
19.2. by answering questions on one or more exams

Criteria

Your performance will be successful when:

19.1. you select the correct equipment and supplies
19.2. you perform all critical steps in the right order
19.3. you position yourself correctly and apply principles of good body mechanics
19.4. you employ appropriate interventions
19.5. you follow safety procedures
19.6. you verbalize an explanation of the process
19.7. your explanation presents sound reasoning as you describe the decisions you make throughout the process

Learning Objectives

19.a. Identify factors that contribute to balance including factors that may limit balance in patient with neuromuscular disorder.
19.b. Explore balance assessment tools including the population the tools were developed for.
19.c. Identify applicable balance assessment tools based on patient/ client needs, goals and the plan of care established by the physical therapist.
19.d. Document findings from assessment correctly.
19.e. Recommend intervention, within the plan of care established by the physical therapist, based on data to improve balance.
19.f. Explore assistive devices/ technology that may improve balance in a patient with a neuromuscular disorder.