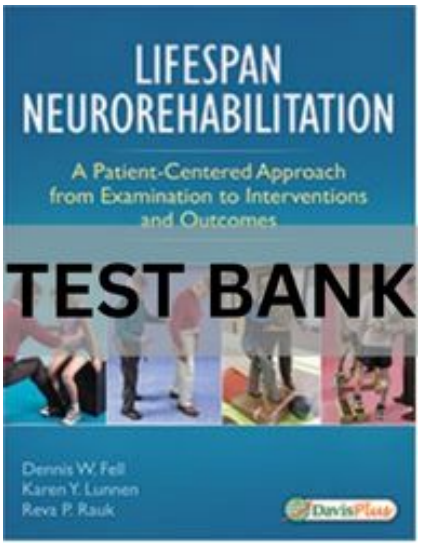
Lifespan Neurorehabilitation: A Patient-Centered Approach from Examination to Interventions and Outcomes 1st Edition Test Bank

Chapter 1: Foundations for Making Clinical Decisions in Neuromuscular Rehabilitation



Dennis W. Fell, PT, MD

Multiple Choice

1. Regarding the clinical decisions to be made regarding the interventions the therapist will provide:

A. Intervention decisions throughout the plan of care are based on data from the initial examination.

B. Decisions regarding intervention are made at the time the plan of care is established.

C. The therapist should always consider how to adjust the intervention exercises/activities to optimally challenge the patient.

D. The primary and ultimate focus is on interventions for underlying impairments.

ANS: C

Rationale: Decisions about intervention are made continually throughout the rehabilitation, and not just at the time the plan of care is established, including ongoing adaptations and adjustments to the therapeutic plan to work the patient optimally and enhance neuroplasticity. These decisions are based on the data gathered in the initial examination, but also on therapist's observation and measurements throughout the rehabilitation process. Although it may be important to provide interventions for impairments that are known to contribute to specific functional limitations, the ultimate and most important focus of clinical decision-making is interventions to improve function and activity.

2. Which one best represents the ultimate goal of PT and OT intervention?

A. Optimal recovery of function and participation

B. Remediation of underlying impairments

C. Correction of the underlying disease process

D. Teach the patient to compensate for any underlying deficits

ANS: A

Rationale: Although the therapist will try to remediate underlying impairments, the ultimate goal is to improve functional activity so the individual can engage with family and community participation.

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Therapists generally do not address the underlying disease process. Compensation is not taught as an ultimate strategy in individuals for whom their disorder indicates that recovery is expected.

3. Based on the examination, the Physical Therapist must determine a Physical Therapy Diagnosis, to include:

A. The ICD-9 or ICD-10 code

B. A label that clearly specifies the movement-related problem(s) for which the therapist will provide intervention

C. A label that clearly specifies the patient's underlying medical diagnosis

D. A descriptive label determined at the completion of the episode of care

ANS: B

Rationale: According to the *Guide to Physical Therapist Practice 3.0*, the physical therapy diagnosis is a label determined by the physical therapist to describe the specific movement-related problems for which the therapist will provide intervention. The physical therapy diagnosis does not include the medical diagnosis made by a physician and categorized using ICD-9 or ICD-10, though these medical diagnoses are often associated with specific functional problems. The physical therapy diagnosis is determined early in the rehabilitation process after the initial examination, and not at the completion of the episode of care.

4. Which set of actions could a new graduate intentionally incorporate to move more quickly toward expert practice?

A. Listens intently to patient and pays attention to clues; forms tentative hypothesis after reexamination; patient-centered approach.

B. Infrequent clinical reasoning; intentionally revising the plan of care; more aware of own mistakes and uses reflection.

C. Listens intently to patient and pays attention to clues; collaboration with the patient; central focus on underlying impairments.

D. Patient-centered approach; intentionally revising the plan of care; performs skill with greater efficiency

ANS: D

Rationale: Characteristics of the expert clinician include: Exhibits a higher frequency of instances of clinical reasoning (Unsworth, 2001); recognizes and "intuitively grasps" cues that are important during the examination/evaluation process (Benner, 1982); uses a patient-centered approach to care (Resnik, 2003); listens more intently to the patient and is more responsive to the patient (Jensen, 1990); better at revising the plan of care according to ongoing changes (Mattingly, 1993; Unsworth, 2001); more

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aware of their own mistakes (self-assessment) (Chi, 1988; Embrey, 1996) and use of reflection (Resnik, 2003); performs skills with greater efficiency and proficiency (Riolo, 1996); forms tentative hypothesis early in the examination (Elstein, 1978); better able to predict achievement of discharge goal location (Blackman-Weinberg, 2005); characterized by four identified dimensions: "(1) a dynamic, multidimensional knowledge base that is patient-centered and evolves through therapist reflection; (2) a clinical reasoning process embedded in a collaborative, problem-solving venture with the patient; (3) a central focus on movement assessment linked to patient function; and (4) consistent virtues seen in caring and commitment to patients" (Jensen, 2000, p. 28). So "less frequent" clinical reasoning (Unsworth, 2001), forming hypotheses after reexamination (Elstein, 1978), and a central focus on underlying impairments (Jensen, 2000) make those responses incorrect.

5. Which statement has ICF dimensions correctly matched?

A. Spasticity is a body system impairment of the motor system that can result from a cerebrovascular accident.

B. Short step-length in gait is a body system impairment of the motor system that can occur following cerebrovascular accident.

C. Slow-velocity ambulation that requires moderate assistance is a participation limitation.

D. Lack of isolated motor control in right elbow flexion is a functional activity limitation.

ANS: A

Rationale: Spasticity, weakness, hypotonia, and lack of isolated motor control (abnormal synergies) are each an impairment of the neuromotor system. Gait with short step-length, slow velocity, requiring assistance, or decreased efficiency are examples of an activity limitation or functional limitation as would be any problem with transfers, sit-to-stand, stair-climbing, or stepping up a curb. Participation focuses on the individual's ability to fulfill roles and engage in community and social events.

6. Which of the following is an example of a primary impairment related to a neurological disorder?

A. Decubitus ulcer at the heel following complete paralysis from SCI

B. Spasticity in L plantar flexors following R CVA with L hemiplegia

C. Decreased cardiorespiratory endurance following a CVA with hemiplegia

D. R plantar flexor contracture following L CVA with R hemiplegia

ANS: B

Rationale: Primary impairments, such as spasticity, paralysis, lack of selective control, sensory deficits, and cognitive impairment occur as a direct result of the disease or disorder. Secondary or indirect impairments occur as a secondary complication from the primary impairments. For example, pressure wounds or decubitus ulcers develop as a result of prolonged pressure from immobility and

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inability to reposition ones self. Debility, deconditioning, or decreased cardiorespiratory endurance occur as a result of decreased physical activity that accompanies many neuromotor disorders. Adaptive shortening or contractures occur as a result of the primary weakness, paralysis, or lack of movement at a joint.

7. Which is the best example of use of appropriate people-first language?

A. “Mr. Jones is a stroke.”

B. “Your 3:00 Spinal Cord Injury is here now for the examination.”

C. “Johnny was diagnosed with CP 2 months ago.

D. “The stroke patient will be here at 1:15.”

ANS: C

Rationale: In people-first language, we should “put people first, not their disability” and never refer to the individual as their diagnosis. Instead of “the stroke patient”, we should say “the patient with stroke”.

8. Regarding neuroplasticity, which statement is most accurate?

A. Use-dependent changes in the nervous system can result in long-term improvement of function in conditions such as Parkinson Disease.

B. In patients with stroke, brain injury, or the nonprogressive form of multiple sclerosis, the therapist expects some degree of CNS reorganization, especially with a challenging intensity and repetition of practice.

C. Neuroplasticity is most optimal with usual intensity of practice to avoid overuse.

D. The therapist should expect greater degrees of neural plasticity in the more mature brain.

ANS: B

Rationale: In most nonprogressive neurological disorders, neuroplastic changes are expected following focused, challenging repetitions of task-specific practice. “Use-dependent” is a term frequently used to describe neuroplastic changes because they clearly result from sufficient repetitions of optimal task practice, and not from a usual intensity of practice. But neuroplasticity does not have long-term improvement in progressive disorders. The therapist should expect greater degrees of neuroplasticity in the younger brain.

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9. Which characteristic is most valued when writing a functional goal, considering measurement of outcomes?

A. Prognosis of the individual

B. Environmental context

C. Age of the patient

D. Objective measures

ANS: D

Rationale: Prognosis, age and environmental context can all influence the degree of recovery and functional outcome, but selecting an objective measure is a valuable part of writing a functional goal.

10. What is a reason that the home exercise/activity program could be as important as the direct therapeutic intervention?

A. Within a day, the patient has time and opportunities for more repetitions of movement at home than during the typical intervention session.

B. Detailed instructions for a home activity allow for the therapist to direct the specifics of the activity.

C. Feedback from the therapist assures proper performance of the activity.

D. The patient may require supervision or motivation from the therapist.

ANS: A

Rationale: The patient has many more hours in a day (including incorporating in their usual routine and activities) for practicing specific tasks at home than during the therapeutic intervention session. Detailed instructions for home activities may be helpful, but the therapist will not be able to provide specific feedback about the performance of the activity. If the patient is not motivated to perform the activity, or does not understand the activity, specific supervision or motivation may be required from the therapist, not possible during a home exercise/activity program.

Chapter 2: Making Clinical Decisions: A Path to Optimal Therapeutic Plan and Outcomes

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Multiple Choice

1. The International Classification of Functioning, Disability, and Health (ICF), is a biopsychosocial model of health. A biopsychosocial model defines disability as an interaction between:

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A. Health-care providers, third-party payers, and consumers
B. An individual's impairments, activity limitations, and participation restrictions
C. An individual's functioning, disability, and health
D. The individual, environment, and society
ANS: D
Rationale: In contrast to other models, the ICF is a biopsychosocial model where disability is defined by an interaction between the individual, environment, and society.

2. The Patient Management Model from the *Guide to Physical Therapist Practice* describes six interrelated steps to assist therapists in decision-making. In this model evaluation is:
A. The process of obtaining a history, performing a systems review, and administering tests and measures
B. A dynamic process where the physical therapist makes judgements based on the information gathered from a patient
C. Determining the optimal improve a patient will attain through intervention
D. Organizing information gathered from a patient into clusters, syndromes, or categories
ANS: B
Rationale: Examination of the patient includes patient history, relevant systems review, and tests and measures (APTA, 2015). Reviewing medical records and conducting the patient interview
provide information about the patient's past and current health status.

3. The process of making clinical decisions continues throughout a patient's episode of care. Determining a patient prognosis is one of these decisions. Which factors listed below are positive prognostic factors that can assist in making predictions about the outcome of a patient with a stroke?
A. A high initial level of physical functioning
B. Greater than 6 months since injury
C. Multisystem comorbidities
D. Older age
ANS: A
Rational: A high initial level of physical functioning is a positive prognostic factor, whereas a low level of physical functioning is a negative prognostic factor.

4. A physical therapist is working with a 5 year-old girl with cerebral palsy in a school setting. The primary outcome, which has been identified by the IEP team, focuses on her need to ascend and descend the steps in the school so she may transfer safely between classrooms on different floors. The most measurable and objective goal would be:
A. The student will demonstrate the ability to ascend the school stairs.
B. The student will demonstrate the ability to ascend and descend stairs.
C. The student will demonstrate the ability to ascend one flight of stairs (8 steps) reciprocally with the use of one railing in her preferred hand and descend one flight of stairs (8 steps) nonreciprocally with the use of one railing in her preferred hand in an open school environment.

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D. The student will demonstrate the ability to ascend one flight of stairs (8 steps) reciprocally with the use of one railing in her preferred hand and descend one flight of stairs (8 steps) nonreciprocally with the use of one railing in her preferred hand with the assistance of her aide.

ANS: C
Rationale: This choice includes the specific criteria needed to determine whether the student attained the goal. It describes the type of pattern (reciprocal and nonreciprocal), the degree of support (one railing), and the performance environment (open).

5. A physical therapist is working with a 45 year-old female (Stephanie) with multiple sclerosis in the home setting. The long-term goal (LTG), which has been identified by the team is: Stephanie will ambulate over unlevel surfaces, such as grass, for a distance of 250 ft within 4 weeks. Currently, she is able to ambulate over level surfaces, such as hardwood flooring, for 50 ft before fatigue sets in. The most efficient, measureable, and objective short-term goal (STG) would be:
A. Stephanie will ambulate over unlevel surfaces such as grass, for a distance of 50 ft within 2 weeks.
B. Stephanie will ambulate over unlevel surfaces such as gravel, for a distance of 50 ft within 2 weeks.
C. Stephanie will ambulate over level surfaces such as hardwood flooring, for a distance of 250 ft within 2 weeks.
D. Stephanie will demonstrate the ability to ascend and descend stairs.
ANS: A
Rationale: The LTG is for Stephanie to ambulate over unlevel surfaces, such as grass, for a distance of 250 ft within 4 weeks. The first STG includes the same surface characteristics as the LTG, but a shorter distance to account for fatigue.

6. Following the development of patient-centered goals and outcomes, the physical therapist designs a treatment intervention. The physical therapist must consider the following as he/she designs the intervention.
A. Patient's needs and participation level in the intervention
B. Patient's diagnosis
C. Evidence supporting the ability of the intervention to remediate deficits, address patient's needs, and promote patient participation
D. Patient's participation level in the intervention and relevant evidence
ANS: C
Rationale: Based on the need for interventions to be evidenced-based and patient-centered, and not diagnosis driven the key factors that should be considered when planning an intervention include evidence supporting the ability of the intervention to remediate deficits, the patient's needs, and ability to participate.

7. A physical therapist who is working in an inpatient rehabilitation setting with a patient who has suffered a stroke, resulting in right-side weakness in the upper and lower extremities, and

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receptive and expressive issues must consider which of the following as he/she designs the intervention process?
A. Patient education strategies
B. Evidenced-based procedural interventions
C. Documentation of patients' participation level in the intervention
D. Patient-centered plan of care, which encompasses coordination and collaboration across professionals, documentation, patient and family education, and assessment of evidenced-based procedural interventions
ANS: D
Rationale: Patient-centered plan of care, which encompasses coordination and collaboration across professionals, documentation, patient and family education, and assessment of evidenced based procedural interventions, offers the most complete items for consideration when designing interventions.

8. Mr. M, the patient with Parkinson disease described in this chapter is seeking physical therapy because of concerns about falling. Review the patient's history and interview. What are two factors that support a positive prognosis for Mr. M.?
A. Mr. M has no comorbidities and his daughter can transport him to therapy session
B. Mr. M was diagnosed with Parkinson disease 13 months ago and he is retired
C. Mr. M takes only one medication and he climbs stairs daily to his second floor bedroom
D. Mr. M can still manage his activities of daily living (ADLs) and he is married

ANS: A
Rational: Because Mr. M has no comorbidities and his daughter can transport him to therapy sessions, these factors suggest good family support. Table 2-1 lists positive and negative prognostic factors.

9. Gentile's taxonomy can be used to guide task analysis to determine how characteristics of the task and environment influence an individual's functional movement. Mr. M reported difficulty walking on unlevel surfaces, such as grass. Using Gentile's taxonomy this task would be classified as:
A. Body transport in a moving environment
B. Body transport in a stationary environment
C. Body stability in a moving environment
D. Body stability in a stationary environment
ANS: B
Rational: Ambulation is a body transport task. Because Mr. M did not report the movement of other people or objects around him, the environment is stationary. This means that body transport in a stationary environment is the correct answer.

10. Which statement best describes clinical decision-making?
A. A cognitive process that guides the ongoing acquisition, recall, sorting, and prioritizing of information regarding clinical decisions

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B. A deliberate process or set of processes that result in decisions toward the delivery of optimal patient-centered intervention.
C. The ongoing decision process that guides development and adjustment of a patient's plan of care.
D. The process that enables therapists to draw conclusions and make judgments and decisions that lead to the plan of care and outcomes assessment.
ANS: B
Rational: Clinical decision-making as presented in Chapter 2 is defined as a deliberate process or set of processes that result in decisions toward the delivery of optimal patient-centered intervention.

Chapter 3: The Neurological Examination and Evaluation: An Overview
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Multiple Choice

1. A 10 year-old patient has hemiplegia as the result of perinatal brain damage. Which of the following dysfunctions is the MOST likely secondary impairment?
A. Lower extremity motor control impairment contralateral to the damage
B. Unilateral passive upper extremity joint motion limitations
C. Asymmetrical step lengths while walking at a self-selected gait speed
D. Sensory impairments greater in the upper extremity than the lower extremity
ANS: B
Rationale: A secondary impairment is an abnormal change in structure or function as a consequence of the pathology and related impairments or as the result of other influences, such as aging or lifestyle choices. Joint motion limitations can occur as the result of impairment of motor control resulting in lack of movement through the entire joint range as part of typical daily activities.

2. During the initial interview of a patient, a slight tremor of the patient's hands is noted when the patient reaches to adjust the position of his clothing or scratch his head. Which of the following screening tests is MOST likely to demonstrate atypical findings?
A. Upper extremity rapid alternating movements
B. Biceps and triceps deep tendon reflexes
C. Bilateral hand grip strength
D. Upper extremity stereognosis
ANS: A
Rationale: The tremor occurs during movement which suggests a cerebellar dysfunction which is most likely to also present as difficulty with rapid alternating movements.

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3. A newly developed neurological function test requires the patient to select a rating of the amount of change that has occurred in the patient's quality of movement following a specific intervention. Which of the following characteristics are descriptive of this test?
A. Subjective, quantitative
B. Objective, quantitative
C. Subjective, qualitative
D. Objective, quantitative
ANS: C
Rationale: The test uses a rating scale based on the patient's assessment of change. The rating scale is a subjective type of test and the assessment of change is a qualitative measure.

4. During the process of collecting information on a patient's history, the patient hesitates when responding to direct questions and family members fill in the responses. Which of the following questions is the MOST appropriate follow up to this observation?
A. What is the name of the President of the United States?
B. What day of the week is today?
C. Can you spell the word "WORLD" forward and backward?
D. Can you repeat this seven-digit number?
ANS: A
Rationale: If there are questions about the patient's recall of information, the typical procedure is to assess the patient's fund of general knowledge. Asking the patient for the name of the President falls within the domain of general knowledge.

5. During the interview process, the patient demonstrates a range of symmetrical facial expressions, including the ability to blink symmetrically. These observations indicate integrity of which of the following cranial nerves?
A. Cranial nerve V-Trigeminal
B. Cranial nerve VII-Facial
C. Cranial nerves V-Trigeminal and VII-Facial
D. Cranial nerves V-Trigeminal, VII-Facial, and VI-Abducens
ANS: B
Rationale: Cranial nerve VII-Facial is tested by asking the patient to smile, puff out the cheeks, close the eyes tightly, and raise the eyebrows. If a person's face is animated during conversations, it suggests that the functions of cranial nerve VII are intact. Cranial nerve V controls forceful closing of the jaw, which would not be apparent during conversation, which eliminates the three options in which it is included.

6. A patient has a diagnosis of a unilateral cerebellar deficit. Which of the following responses in the involved upper extremity is MOST likely to occur when the patient is asked to hold the upper extremities in front of the body with the forearms supinated and the eyes closed?
A. The arm will rise.
B. The arm will drop.
C. Pronation will occur.
D. Internal rotation will occur.

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