**Pg. 111 #1, 9, 11, 14**

**1) What are the roles of the occupational therapist and the OTA in the evaluation and treatment of an adult with CNS dysfunction who has a motor control deficit? How do these roles change with the establishment of service competency and with experience in a particular setting?**

* The role of the occupational therapist and the OTA in the evaluation of treatment for an adult with CNS dysfunction with motor control deficits is very important. Since there are many aspects to motor control it’s important for the occupational therapy practitioner to completely evaluate the patient. All details including abnormal muscle tone, posture, physical appearance, different reflexes, and other potential deficits in motor control need to be evaluated for accurate information to continue with therapy. The evaluation should initially be done by the OT, although, after establishing service competency the OTA can perform standardized tests. This is ultimately up to the OT and they are able to determine if the OTA can do standardized tests. The OTA can be in collaboration with the OT to come up with an appropriate treatment plan and the OTA can continue to work hands on with the patient.

**9) Describe the functional difficulties encountered when the following primitive reflexes persist during the performance of functional activities in the adult who has sustained a CNS insult: (a) asymmetrical tonic neck reflex; (b) symmetrical tonic neck reflex; (c) tonic labyrinthine reflex; (d) crossed extension reflex; and (e) grasp reflex.**

* **Asymmetrical tonic neck reflex** involves difficulty maintaining the head in midline while moving the eyes toward or past the midline. Therefore, functional difficulties could include not being able to extend or flex arm without turning the head which can impede bringing an object to the mouth, holding an object in both hands, or looking at and grasping an object in the front of the body.
* **Symmetrical tonic neck reflex** cannot support the body weight on hands and knees, maintain balance in quadruped, and creep normally. Functional difficulties include not being about to move from supine to sitting position because bending the head forward (flexed) causes increased extension in legs. The patient is unable to bend at the hips to sit straight up.
* **Tonic labyrinthine reflex** involves very limited movement. Functional difficulties include inability to lift the head in supine position, to move from supine to sitting positing using flexion of trunk and hips, and even to sit in wheelchairs for long periods of time.
* **Crossed extension reflex** involves difficulty with a normal gait patter because strong extension occurs in the affected leg as the unaffected leg is flexed. Therefore, patient may have difficulty bridging which is lifting bottom while laying down with both legs flexed while in bed.
* **Grasp reflex** involves either being unable to release objects in hand (palmar) or person have difficulty keep toes from curling in shoes (plantar). Functional difficulties include not being able to let go of something and not being able to walk correctly.

**11) Describe the upper extremity flexion and extension pattern responses typically observed in a patient who has sustained a CVA**

* Usually within the affected side of a patient who sustained a CVA there is a lot of UE flexion. The patient usually shows evident signs of hypertonicity. The elbow flexed, bent wrist, pronated forearm, clenched fist, and thumb in palm are characteristics associated with hypertonicity. Extensor patterns are more commonly seen in LE where flexor patterns are commonly seen in UE.

**14) List five types of incoordination and describe the functional impact on an adult’s performance of ADL. For example, “Ataxia would interfere with self-feeding because…”**

* **Dysmetria** would interfere with judging distances and a patient may knock over a cup while reaching for it because of the inability to estimate ROM necessary to reach target.
* A **tremor** would interfere with inserting a key into a door because of involuntary shaking
* **Dysarthria** would interfere with the patient’s ability to have a meaningful conversation because speech production is faulty and is either explosive or slurred.
* **Adiadochokinesia** could interfere with washing windows because of the inability to perform rapidly alternating movements like flexion and extension.
* **Nystagmus** could interfere with balance and orientation because of involuntary movement of the eyeballs either up-and-down, back-and-forth, or a rotating direction.

**Pg. 169 #2, 7, 12**

**2) Discuss the relationship between sensation and motor performance.**

* Sensory information can play many roles in the control of movement. Sensation can activate reflexive movements, regulate movements, and even control movements. When a motor action occurs the persons, brain receives sensory feedback about the effectiveness of the action involving several sensory systems. Then sensations are sent back to the CNS where a comparison of intended action and what actually happened is made. Therefore, motor performance and sensation go hand in hand.

**7) Describe how unilateral neglect can be observed**

* Unilateral neglect can be observed by observations of ADL’s and IADL’s. This includes failure to use one side of the body or one side of the body space. So, if the patient isn’t using one side of their body or doesn’t even acknowledge one side then that can show the occupational therapy practitioner there is an issue with either unilateral neglect or inattention.

**12) What behaviors will the client with poor mental flexibility and abstraction display?**

* Behavior that would be displayed would include difficulty in problem solving and transfer of knowledge to new situations. Abstraction enables a person to see relationships amount objects, events, or ideas and it’s hard for them to discriminate relevant and irrelevant information or even to recognize absurdities. This person is going to have issues with reasoning information.