**Title and Focus of Activity**: Physical therapy intervention for patients with neurological injury.

*Plan of care/Intervention*

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**Course Information**: Physical Therapy Management of Adults and Elders with Neurological Dysfunction II (Examination and intervention for patients with stroke, brain injury, multiple sclerosis, basal ganglia disorders, vestibular disorders and Alzheimer’s); 4 credit hours, 6 clock hours; Occurs after Neuroanatomy and Physical Therapy Management of Adults and Elders with Neurologic Dysfunction I (Examination and intervention for patients with spinal cord injury, neuromuscular diseases, and peripheral neuropathies).

**Learning Activity Description**:

Context: This activity is conducted as part of the laboratory portion of the class. The setting is either an inpatient rehabilitation hospital or outpatient physical therapy

Purpose: Allow students to develop treatment plans and progression of treatment for patients with neurological injury. Additionally, students are given the opportunity to practice safe patient handling skills.

* Diagnoses for patients in this activity can include any type of neurological injury. The functional level of the patient can vary depending on the diagnosis and the deficits present. Diagnoses may include patients with various presentations of stroke including impulsivity, Pusher syndrome, neglect, dense hemiplegia, mild balance deficits, and ataxia to give students a feel for what they might see in the clinic.
* Students are provided with physical therapy evaluation information from a selected patient that presents in an inpatient rehabilitation hospital, a skilled nursing facility or an outpatient setting. Alternatively, the same patient may be followed through different settings to emphasize the continuum of care during treatment progression. Evaluation information can be written, video or an actual mock evaluation performed with a standardized patient. The students are expected to review this information before the class period and to independently write down all patient deficits that they identified. In addition, they are asked to write goals for each of these deficits and to record possible treatment ideas that will enable the patient to reach these goals. This information is submitted to the instructor before the class begins.
* During class time, students are divided into groups of 5 or 6 and given time to discuss and record all of the identified patient deficits, specific and measurable goals and various treatment options specific for the patient’s deficits. They then design a 1 hour treatment session at the patient’s current level of function.
* Groups are then questioned individually and asked to share their treatment ideas with the rest of the class. Treatment ideas should be presented in a logical progression that is feasible to use with this patient in the clinic. If viable treatment options emerge, then individual members of the group are asked to demonstrate safe patient handling techniques using their ideas. The instructor plays the role of the standardized patient.
* Once all groups have contributed and practiced their ideas, the groups are asked to hand in their recorded deficit, goal and treatment documentation. Other treatment options may be discussed and demonstrated by the instructor at this time.
* When the complete and appropriate 1 hour treatment plan has been developed then all students are divided into pairs. One student role plays the patient while the other student becomes the physical therapist. Each therapist is required to practice the safe performance of the treatment ideas and then switch places with their partner.
* The activity can be progressed by demonstrating functional improvement of the patient and asking the groups to create a new treatment session.

Time for student to complete the activity: Preparation for activity outside of/before class: 1 hour;

Class time completion of the activity: 1 to 2 hours per patient case.

Readings/other preparatory materials: Written evaluation information can be fabricated, taken from published case studies or derived from actual patients that the instructor has worked with in the clinic. Alternatively, either a video of the evaluation of a patient or a mock evaluation using a standardized patient can be used.

Learning Objectives:

1. accurately interpret neurological examination findings.
2. generate acceptable short and long term goals based on patient deficits.
3. create a treatment plan that targets the patient’s deficits.
4. progress patient treatment appropriately based on functional improvements.

Methods of evaluation of student learning:

Grades for this assignment are given for both individual and team contributions.

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| **Grading Criteria**  | **Weight** | **Score** | **Comments** |
| Identifies all patient deficits independently | 15 |  |  |
| Creates appropriate goals independently | 10 |  |  |
| Describes appropriate treatment ideas based on deficits independently | 15 |  |  |
| Provides accurate written documentation independently | 10 |  |  |
| Identifies all patient deficits as a group | 10 |  |  |
| Creates appropriate goals as a group | 10 |  |  |
| Describes appropriate treatment ideas based on deficits as a group | 10 |  |  |
| Safely performs treatment ideas | 10 |  |  |
| Provides accurate written documentation as a group | 10 |  |  |
| **Total** | **100** |  |  |