

CSRS III & IV Case Study Exercise

Case One: Peter

A little Background... Peter is a 65 y.o. male with past medical history of right MCA stroke with residual left hemiparesis admitted for nausea and dizziness. Imaging showed acute ischemia in the left PICA territory. Per both patient and wife, his symptoms have improved with only slight dizziness. Peter appears to have mental capacity to make his own medical decisions. He is able to describe his disease course, why he is admitted to the hospital and what he expects to accomplish, but has difficulty with self care, and is observed to sometimes overestimate his abilities and say things unexpectedly with occasional emotional lability. Pt reports walking 2 miles per day and would like to try a spinning class.

Now the video... Observe movement in the video. What do you see? Write down some of your observations to share with your group.

Here are some examples of things you could look for OR note whatever you feel is priority.

- Is he able to maintain alignment and symmetry during his activities?
- Where does he initiate her movement (ie. when reaching is it distal or proximal, if it is sit to stand where is the weightshift?)
- How much assist does he need to complete the task?
- What is the speed of movement?

Remember what you've learned this weekend, including: Hemiplegic shoulder, pain management, executive function, E-stim, modified CIMT, Perceptual deficits (Apraxia, pusher syndrome, visual spatial neglect) Vision, taping.....

So what are your Hypotheses... WHY do you think he looked like that? Needed that assistance or couldn't maintain alignment? Discuss in your groups what you think are his priority impairments. So if you could only pick 3 of the most important things to treat – what would you choose? Be as specific as possible.

- **Neuromotor:** ↓ abnormal force production, difficulty initiating/sustaining activity, inactivity/over-activity of muscles, imbalance of muscle activity, coordination, synergies
- **Musculoskeletal:** poor proximal stabilization for distal mobility, difficulty with eccentric/concentric, isometric, ↓ muscle strength versus endurance, ↓ PROM, ligamentous laxity, alignment
- **Cardiopulmonary:** ↓ respiratory endurance/capacity, cannot perform synchronous breathing with exercises
- **Sensory:** Difficulty with sensory processing, ↓ sensory integration, ↓ abnormal sensory integrity
- **Cognition:** attention, decreased processing, dual tasking

You have also now learned more about...

- **Perceptual:**
- **Executive Function**
- **Motor**

Remember what outcome measures you have learned during CSRS I & II and CSRS III & IV: What outcome measure could you choose to objectively measure change in the impairments noted above?

Finally... What interventions could you choose to optimally address the above impairments? Please write down your progression. How would you incorporate motor learning strategies into your interventions?

Case Two: Shelly

A little background... Shelly is a 59 y.o. female with PMH HTN, HLD, depression, smoking admitted for left hemiparesis due to R ACA CVA. She has aphasia, severe left hemiparesis, and hemisensory neglect. Shelly is oriented to self, city, year, NOT month, follows 1 step, NOT 3 step commands, answers yes/no questions 50-75% accuracy with perseveration on "yeah". She lives alone in a 2 story house with 3 steps to enter and bedroom and bathroom in the second floor. Currently Shelly performs transfers with Max A, and all ADL tasks with Max A. Her son reports that he and his wife and 2 children (12 and 17 yo) can provide 24 hour care in their home if Shelly is able to perform transfers with Min A.

Now the video... Observe her movement in the video. What do you see? Write down some of your observations to share with your group.

- Is she able to maintain alignment and symmetry during her activities?
- Where does she initiate her movement (ie. when reaching is it distal or proximal, if it is sit to stand where is the weight shift?)
- How much assist does she need to complete the task?
- What is the speed of movement?

Remember what you've learned this weekend: Hemiplegic shoulder, pain management, executive function, E-stim, modified CIMT, Perceptual deficits (Apraxia, pusher syndrome, visual spatial neglect) Vision, taping.....

So what are your Hypotheses... WHY do you think she looked like that? Needed that assistance or couldn't maintain alignment? Discuss in your groups what you think are her priority impairments. So if you could only pick 3 of the most important things to treat – what would you choose? Be as specific as possible.

- **Neuromotor:** ↓ abnormal force production, difficulty initiating/sustaining activity, inactivity/over-activity of muscles, imbalance of muscle activity, coordination, synergies
- **Musculoskeletal:** poor proximal stabilization for distal mobility, difficulty with eccentric/concentric, isometric, ↓ muscle strength versus endurance, ↓ PROM, ligamentous laxity, alignment
- **Cardiopulmonary:** ↓ respiratory endurance/capacity, cannot perform synchronous breathing with exercises
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- **Cognition:** attention, decreased processing, dual tasking

You have also now learned more about...

- **Motor**
- **Perceptual:**
- **Executive Function**

Remember what outcome measures you have learned during CSRS I & II and CSRS III & IV: What outcome measure could you choose to objectively measure change in the impairments noted above?

Finally... What interventions could you choose to optimally address the above impairments? Please write down your progression. How would you incorporate motor learning strategies into your interventions?