Patient Examples:

1. CVA

- Mrs. Blue is a 76-year-old woman who has a history of hypertension and diabetes mellitus and had a myocardial infarction 2 years ago. She arrives at her local emergency room *4 hours* after an acute onset of weakness in her left arm and leg. She fell at home after trying to get up, and it was only after her neighbors heard her calls for help that the emergency services rescue team came to her aid.
- On admission to the emergency room, she has an *elevated blood pressure* of 200/100 mmHg and is alert and oriented. Her initial physical exam reveals left-sided weakness and sensory loss that is *greater in her arm than her leg.* A CT scan is performed which reveals a clear, acute infarct in the right temporoparietal area with associated edema and no mass effect or hemorrhage.
- The neurologist and cardiologist concur on anticoagulation with heparin followed by conversion to warfarin.

1- Why was a fibrinolytic agent not prescribed for this patient? When would it be appropriate? What must be checked first?

2- Explain the anticoagulant regime used for Mrs. Blue- heparin followed by warfarin.

3- List 2 PT precautions while you treat Mrs. Blue during the acute phase.

4- What follow-up pharmacological treatment may be appropriate for Mrs. Blue once she returns home?

2. PD

- Mr. Red has an eight year history of PD and has been on sinemet QID for the past 5 years. He is receiving PT following a fall at home. After a few PT sessions, the PT noticed that there were certain days when the patient was able to actively and vigorously participate in the therapy program. On other days, the patient was essentially akinetic, and his active participation in exercise and gait activities was virtually impossible. There did not seem to be a pattern to his good and bad days, and the beneficial effects of the rehabilitation program seemed limited by the rather random effects of his levodopa medication. The patient stated that these akinetic episodes sometimes occurred even on nontherapy days.

1-Assuming that the patient's PT was scheduled in the morning, *WHAT* could be going on with his morning akinesia?

2- What modifications would you recommend?

3- Describe the benefit of using DA agonists such as pramepexole.

4- What other meds could have been prescribed?

3. AD

- Mrs. Pink is a 77 y/o woman who was recently diagnosed with Alzheimer's disease and lives with her son and his family. Her concurrent dx include DM, HTN, depression and she sustained her 2nd CVA one month prior. Her medications include aspirin 325 mg/day, celexa 40 mg QD, metformin 500 mg BID, Lisinopril 20 mg/day, Toprol XL 25 mg/day.
- She has been receiving physical therapy to assist recovery from her latest CVA. Her physician has prescribed an Exelon patch QD and Namenda daily for the AD dx.
- Her son called to cancel PT today as Mrs. Pink reports nausea, vomiting and c/o "weakness."

1- List the probable indication for each med.

2- Check for potential drug interactions using http://www.webmd.com/interaction-checker/ or

http://reference.medscape.com/drug-interactionchecker or a site of your choice.

3- What is the likely culprit for these new s/s?

4- What could you recommend?

4. MS

- Mrs Black is a 62 y/o female with a PMH of RRMS x 19 years. She is still ambulatory with a STCN and independent with self-care, though with constant fatigue and intermittent spasticity. Since diagnosis, she has been prescribed several interferon beta formulations (IFN) and currently has been taking Avonex.
- She admits to non-compliance with the medication injections, some weeks only self-administrating twice.
- She now reports increasing weakness BLE and N & T in her RUE. Mrs. Black spoke to her physician on the phone and she prescribed a Depo-Medrol pack (methylprednisolone acetate.)

1- What other options of disease modifying meds might be better suited for Mrs. Black? Why?

2-What other suggestions do you have?

5. SCI with spasticity

- Mr. Orange is a 30 y/o man who sustained complete paraplegia below L2 during a MVA. With rehab he became independent with self-care, and had begun to ambulate wearing KAFOs. During this time, spasticity had increased in his LEs to the point where dressing and self-care were often difficult. The tone also made it difficult to don/doff his KAFOs. He was begun on dantrolene (Dantrium) at an initial oral dosage of 25 mg/day, which was gradually increased to 400 mg/day.

Although the dantrolene controlled his spasticity, he began to notice UE weakness and difficulty transferring and ambulating.

1- How does dantrolene modulate tone?

2- Why is it causing UE weakness?

3- What other medication options might be a better choice for Mr. Orange?

4- What would be your recommendation to the prescribing physician?