neuro dx

dx	symptoms
MS	1. Fatigue – the most common symptom of MS. Primary fatigue – due to cortical damage, -leads to overwhelming feelings of fatigue -Secondary fatigue- due to deconditioning, respiratory muscle weakness, pain. 2. Paresthesias – pins and needles sensations. 3. Sensitivity to extreme heat. 4. Pain 5. Vertigo 6. Emotional reactions -lability -euphoria -reactive depression 7. Visual symptoms -diplopia -scotoma -loss of visual acuity -optic neuritis (loss of vision and pain behind the eye, temporary) 8. Motor symptoms -muscle weakness -impaired coordination -impaired balance; ataxia -partial or complete paralysis -spasticity -intention tremors with movement -impaired bowel and bladder functions; incontinence -impaired sexual functions 9. Cognitive symptoms -impaired short term memory -word finding problems -difficulty attending -slow processing speed -executive function problems

neuro dx (cont)

ALS	1. Progressive weakness in hands and feet, moves proximally toward trunk. 2. Loss of fine motor control. 3. Difficulty walking with tripping and falling. 4. Slurred speech, difficulty swallowing. 5. Muscle cramps and twitching in arms, shoulders tongue. 6. Difficulty maintaining upright posture or holding head up. 7. Cognitive decline characterized by personality change, irritability, obsessions, poor insight, and pervasive deficits in frontal executive tests. Presentation consistent with the changes to character, social conduct, and executive function in frontotemporal dementia. 8. Does not affect eye function, bowel and bladder function, sensory or sexual functions.
parkinsons	1. Tremors -resting tremors: occur when the extremity is at rest. -intention tremors: tremors that increase in severity when the person thinks about moving the limb. 2. Muscle rigidity and stiffness. 3. Cogwheeling of joints – joint ratchets when moving. 4. Akinesia or Bradykinesia – slow movements or inability to initiate movement. 5. Gait disorders -shuffling gait -falling forward -retropulsion – walking backwards. 6. Postural Instability 7. Mask-like facial expression 8. Micrographia – tendency to write small. 9. Cognitive symptoms -impaired memory, executive function -dementia -depression 10. Communication and oral motor symptoms -hypophonia (soft voice) -lack of expression -swallowing problems -drooling

neuro dx (cont)

guillain barre syndrome	1. Tingling sensations in the legs that spread to the arms and upper body. 2. Muscle weakness beginning in the legs and spreading to the arms and upper body. 3. Mild, distal sensory loss. 4. Muscle belly tenderness as diagnostic sign. 5. Fatigue 6. Edema in legs 7. Deep tendon reflexes are absent. 8. Possible facial palsy. 9. Possible autonomic symptoms such as hypotension, diaphoresis, urinary retention. 10. Anxiety
myasthenia gravis	1. Increasing muscle weakness with activity, weakness improves with rest. 2. Drooping eyelid on one side. 3. Impaired facial muscles with slurred speech. 4. Difficulty chewing and swallowing. 5. May experience difficulty breathing. 6. End stage – may experience quadriparesis, respiratory failure.

occupational therapy tx

dx	tx	precautions

occupational therapy tx (cont)

MS	Muscle weakness: -gentle therapeutic exercise -ergonomic positioning -education in joint protection techniques Visual impairment: -clear walkways in the home -provide contrast at the edges of steps or carpeting (bright or dark electrical tape) -adaptations for low vision (large print, large buttons, etc.) Sensory impairments: -sensory re-education -adaptations for safety to prevent burns Cognitive impairments: -adaptations for short term memory, executive functioning. -educate family members in how to allow extra time for processing, word finding. Spasticity: -resting splints, AFOs Dysphagia: -thickened liquids -allow extra time to chew and swallow Fatigue: -educate patient and family in energy conservation and work simplification techniques	1. Avoid extreme physical stress -strengthening should be gradual -allow for rest breaks -plan activities over several sessions. 2. Avoid thermal physical agent modalities. 3. Educate patient and family about exacerbations and remissions. -disease prognosis -exacerbations happen, patient is not faking illness.

occupational therapy tx (cont)

ALS	Muscle spasticity: -AAROM and PROM to prevent contractures -positioning to reduce spasticity -diaphragmatic positioning to reduce the work of breathing Limited upper extremity movement: -adaptations for functional activities, such as built-up handles on eating and grooming utensils or a universal cuff. Limited mobility: -Cane -AFO for foot drop -Walker -Power wheelchair in late stage Dysphagia: -adapt food consistencies -allow extra time to eat -reduce distractions during eating Fatigue: -education in energy conservation and work simplification techniques Limited Communication: -augmentative communication -single switch or eye gaze control Caregiver education: -management of dysphagia -environmental modifications -prevention of skin breakdown	1. Progressive resistive exercise to strengthen muscles may cause cramping, fatigue and is contraindicated 2. Monitor for aspiration and choking – may need suction. 3. Monitor for decreased respiratory function 4. Monitor for pressure sores. 5. Avoid overwhelming the patient with adaptive equipment, as the person may not receive adaptations well.

occupational therapy tx (cont)

parkinsons	Impaired functional mobility: -adapt home to clear pathways -recommend flat shoes, not rubber soled shoes (can stick, cause falls) -avoid tight spaces -encourage group exercise to manage bradykinesia, elevate mood Muscle rigidity and pain: -moist heat -gentle ROM -closely monitor pain during exercise Deficits in self care and feeding skills: -distal wrist weights to manage tremors -weighted utensils -thickened liquids -soft food consistencies and small portions Problems with communication: -use a mirror for facial awareness -felt tip pen for writing -address vocal responses – volume Employment: -sedentary job with limited need for communication and gross motor movement Family and caregiver training: -use of timed auditory cues to assist patient with initiating and speeding up movements -medication management	1. High risk for falls due to postural instability - keep pathways clear - remove throw rugs 2. Prone to aspiration due to dysphagia. 3. Mask-like face may make it difficult to determine emotions. Closely monitor pain and signs of depression. 4. Medication side effects may cause orthostatic hypotension, stomach problems, dystonia.

occupational therapy tx (cont)

guillain barre syndrome	Acute Phase: Occupational Therapy evaluation and treatment may not be ordered during this phase. If it is, focus should be on positioning and splinting to prevent muscle tightness and contracture. PROM may be provided as tolerated but should not be overdone. Plateau Phase: -Symptoms are stabilizing, OT treatment may begin if it did not during the acute phase. -Decreased trunk control and core stability: provide positioning to trunk, head, and upper extremities for stability; adjust for maximum function in sitting and supine. -Decreased UE ROM and strength: provide PROM, especially if strength below grade Fair. -Increased anxiety: focus on providing positioning and adaptations for comfort and communication, i.e. adapted call button. Recovery Phase: -Proximal to distal recovery of movement: provide adaptations for fine motor tasks, such as use of a mobile arm support. -Gradual recovery of gross and fine motor skill: gradually increase the number and complexity of tasks as motor function returns. ADLs and IADLs: assist the patient in resuming prior occupations and roles. -Residual weakness or loss of endurance: train in energy conservation and work simplification techniques.	-Watch for signs of fatigue during treatment, discontinue activity if needed to prevent overexertion. -Watch for muscle substitution patterns during movement ; provide adaptations to compensate for weak or fatigued UE muscles to prevent long term pain or contracture from substitution.

occupational therapy tx (cont)

MG	Upper extremity weakness: -exercise and activity to regain muscle power and endurance -adaptations for extreme weakness, including overhead slings, mobile arm supports, electronic devices Facial and oral-motor weakness: -educate in adaptations to food consistencies, including thickened liquids, small bites, food consistencies -train in self-check of facial muscle status in mirror Fatigue: -educate patient in disease process, fact that muscles fatigue with activity, recover with rest -educate in energy conservation techniques -educate in work simplification and adaptations to lifestyle -assist patient and family in modifying home to compensate for low endurance and weakness	1. Attend to and respect the patient's activity tolerance. 2. Watch for changes in respiration and emotional distress during therapy. 3. Use the Borg Scale of Perceived Exertion to monitor the patient's perceived exertion levels.