

## Using Pathophysiology of Disease for Effective Documentation in Two Common Geriatric Syndromes

### Objectives

- Describe the pathology of 2 common geriatric syndromes: dementias and Parkinson's Disease
- Relate the pathology to clinical observations of the 2 syndromes
- Identify how the observations should translate to disease progression notations
- Identify why the IDT communication is critical to these 2 syndromes and disease progression

Cortical Dementias: Prototype: Alzheimer's Dementia

Subcortical Dementias: Prototype: Parkinson's Disease (Paralysis Agitans)

### Quick Review of the Brain

- CNS axonal regeneration is limited-in cases of dementias and other progressive pathologies destruction is ongoing with no repair
- Brainstem and Reticular Formation: regulates vital functions such as cardiovascular and respiratory function. Connects to Reticular Activating System (wakefulness, selected motor movements)
- Forebrain
  - Cerebrum and Basal Ganglia: Contains prefrontal area (concentration, short term recall, inhibits limbic system (emotional control))
  - Premotor area: Cell bodies of basal ganglia and programs motor movements
  - Precentral Gyrus: Motor area (homunculus-"little man")
  - Broca Area: left side. Motor aspects of speech
- Parietal Lobe: sensory inputs, sensory association, storage, analysis, interpretation of stimuli
- Occipital: visual cortex and visual association
- Temporal: auditory cortex and interpretation of speech. Long term memory, balance, taste, smell
- Cerebrum interior: cerebral nuclei give rise to basal ganglia (fine motor movement) and the amygdala (emotion)
  - Hypothalamus: expression of emotion, feeding responses, behavioral patterns, sexual behavior, level of arousal, and thalamic relay station (COMPLEX!)
- Midbrain: visual tracking, substantia nigra where dopamine is synthesized
- Hindbrain: Cerebellum and pons controlling balance, posture, motor coordination, respiration and cranial nerves I-VIII.

*COGNITIVE AWARENESS REQUIRES THE MIDBRAIN, THALAMUS, TEMPORAL LOBE, HIPPOCAMPUS OR MOVE, ENGAGE, LEARN*

### Clinical Manifestations

1. Cortical areas: difficulty naming, ↓ language comprehension, loss of recent memory, agnosias, apraxias, loss of remote memory, loss of mathematical skills, altered visuospatial relationships
2. Subcortical areas: forgetfulness, apathy, depression, slowed thought processes, accident prone, personality changes, inappropriate affect, loss of motor function

**So How does this translate to what YOU do?**

### Using the FAST Scale

	Limitations	Brain Involvement
7A	SPEECH limited to appx ½ dozen intelligible words or fewer in an average day or during an interview	Forebrain-Cerebrum
B	SPEECH limited to single intelligible word in an average day or during an interview	Forebrain-Cerebrum
C	AMBULATORY ability is lost (cannot walk w/o assistance)	Forebrain-Premotor, precentral gyrus, may include cerebellum, basal ganglia
D	Cannot SIT UP w/o assistance	Forebrain-Premotor, precentral gyrus, cerebellum
E	Loss of SMILE	Forebrain-precentral gyrus
F	Loss of ability to HOLD HEAD up INDEPENDENTLY	Forebrain-precentral gyrus, cerebellum

- Missing are receptive and sensory deficits, behaviors, reasoning, alertness, arousal, and movements other than gross motor. (FAST 2-6 deal with the more cognitive deficits in reasoning, executive function, and ADLs)
- FAST is only reliable in Alzheimer's Dementia (when using for other dementias, select the lowest deficit and note what is retained)

**Documentation for Alzheimer's Disease-** Decisions regarding feeding tubes, DNR, treatment of infections, hospitalization. These are the overall goals for care.

Specifics for each certification period

1. Progression on the FAST scale and PPS (this is a given)
2. Infections in the certification period and effect on function
3. Weight maintenance and PO intake or development of an adult failure to thrive syndrome
4. Watch feeding encounters, length of time to feed, coughing and choking, diet/fluid downgrade, wet vocalization with meals, loss of ability to use utensils or need for finger foods
5. Development of wet vocalization independent of feeding times
6. Reflexive eating or refusal of food
7. Inability to manage food in the mouth, inability to tolerate utensils in mouth
8. Subtle signs such as agitation during activities, meal times, inability to handle sensory input, increasing fear or catastrophic reactions, loss of eye contact, loss of recognition of familiar people, decreasing wakefulness, decreasing physical activity

9. Loss of swallow ability, cough reflex or return to primitive reflexes such as startle or rooting reflex
10. Changes in medications either added or discontinued
11. Helpful lab findings: CBC, CMP/BMP, prealbumin, total protein/albumin.

Remember, dementias of all types target specific areas of the brain that you can cite in your documentation. Alzheimer's, Lewy Body, Frontotemporal (Pick's) all are progressive and will involve all areas of the brain.

**Documentation for Parkinson's Disease**-Decisions regarding feeding tubes, DNR, treatment of infections, hospitalization. These are overall goals for care.

Parkinson's is a disease of the basal ganglia and loss of dopamine. In advancing stages deposition of abnormal protein may affect other brain structures. There is an imbalance in dopaminergic activity (inhibits) and cholinergic (excites)

Specifics for each certification period (remember you are documenting physical effects and in the case of dementia w/Parkinson's, the cognitive effects)

1. Cognitive issues: forgetfulness, apathy, endogenous depression, slowing thought processes, personality changes or inappropriate affect, hallucinations and delusions, poverty of thought, difficulty with conceptualization.
2. Physical issues: Decreasing or increasing tremor, rigidity, bradykinesia, postural abnormalities, magnetic gait, falls and righting ability, swallowing problems, masked facies, loss of voice volume, monotone voice, loss of breathing efficacy.
3. Autonomic-Neuroendocrine issues: orthostatic hypotension, sweating, gastric retention, constipation, urinary retention, seborrhea, drooling or dry mouth, excessive tearing or dry eyes, nasal drainage.
4. Medication issues: Resistance to dopaminergic drugs. More "off" periods despite medications. Need to treat depression as a loss of dopamine activity rather than situational issue.
5. Look also for wet vocalization, decrease in arousal, coughing w/meals or with saliva, diet downgrade, thickener, medication changes, infections such as aspiration pneumonia, need for meds d/t constipation, Foley for urinary retention, and falls.
6. Helpful labs CBC, BMP, prealbumin. Look at GDS or Cornell depression scales as well.

**Other tips:**

1. Document adding or discontinuing DME
2. Discuss findings with other key members of your IDT. Who is most involved? Home Health Aides (put in plan what they should look for). Is chaplain involved regularly? What is he/she seeing from visit to visit. Make sure it is in their notes. Look at notes from your face to face evaluators (NP, medical director). What is different from visit to visit?

Thank you for your attention!

Nancy Trimble PhD, RN ANP-BC  
Hospice of Dayton  
324 Wilmington Ave  
Dayton, OH 45420  
ntrimble@hospiceofdayton.org