COURSE NAME : CLINICAL NEUROLOGY

COURSE CODE : 746285

TITLE : NEUROLOGY ASSESSMENT – PART III

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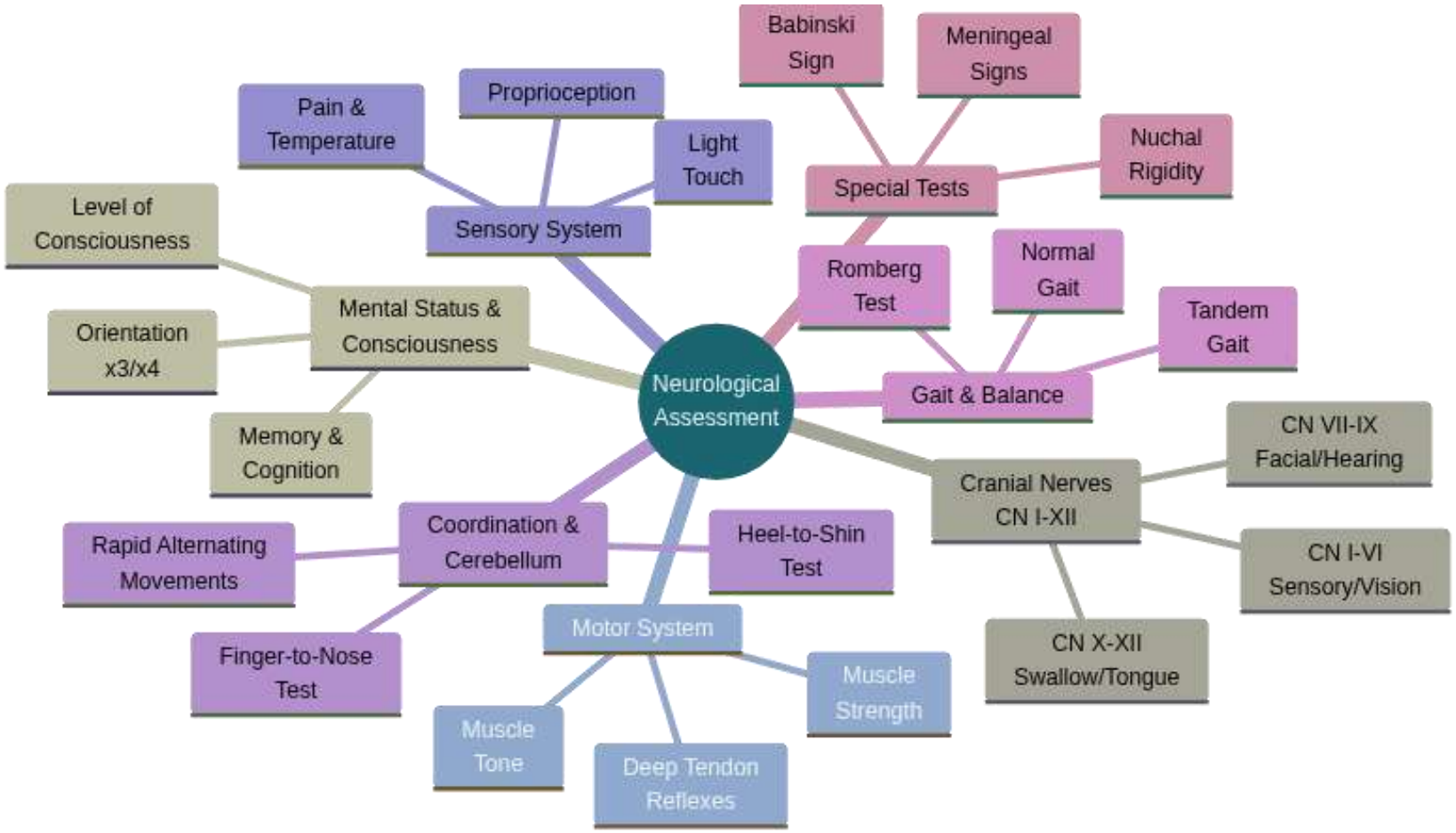
DESIGNATION : ASSOCIATE PROFESSOR

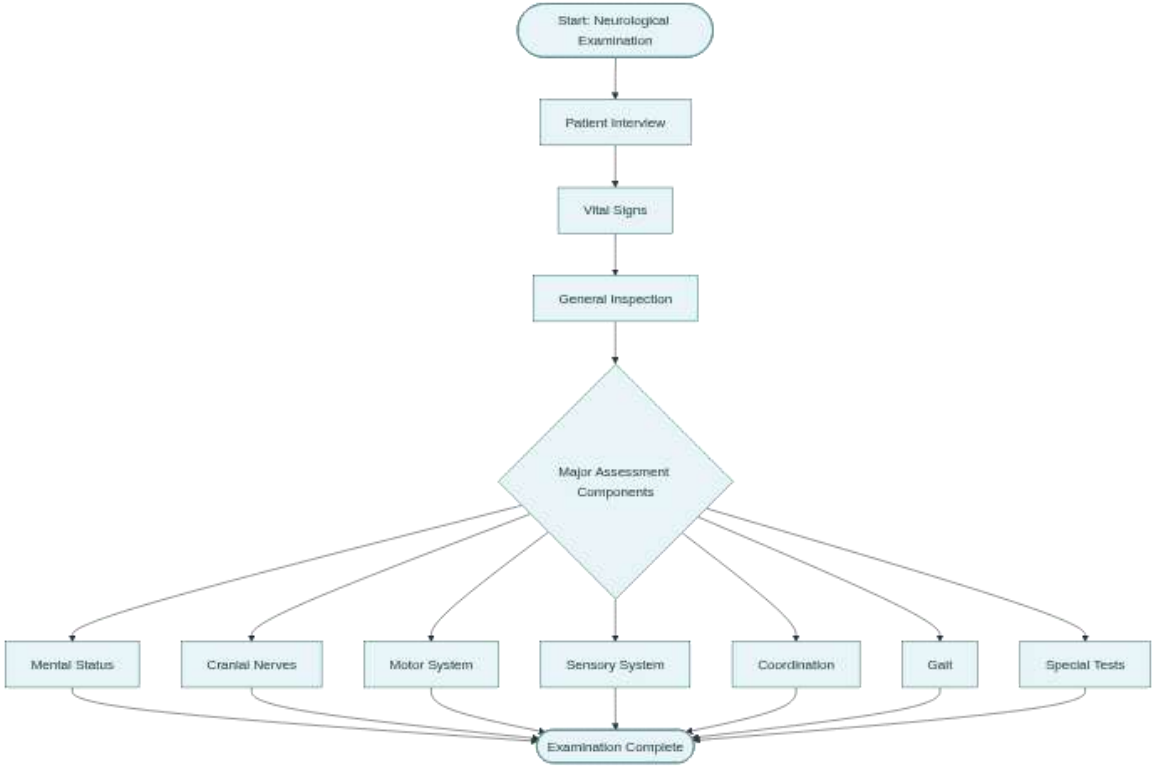
NEUROLOGICAL ASSESSMENT

Clinical Examination & Diagnosis

NEUROLOGICAL ASSESSMENT COMPONENTS



ASSESSMENT SEQUENCE & FLOW

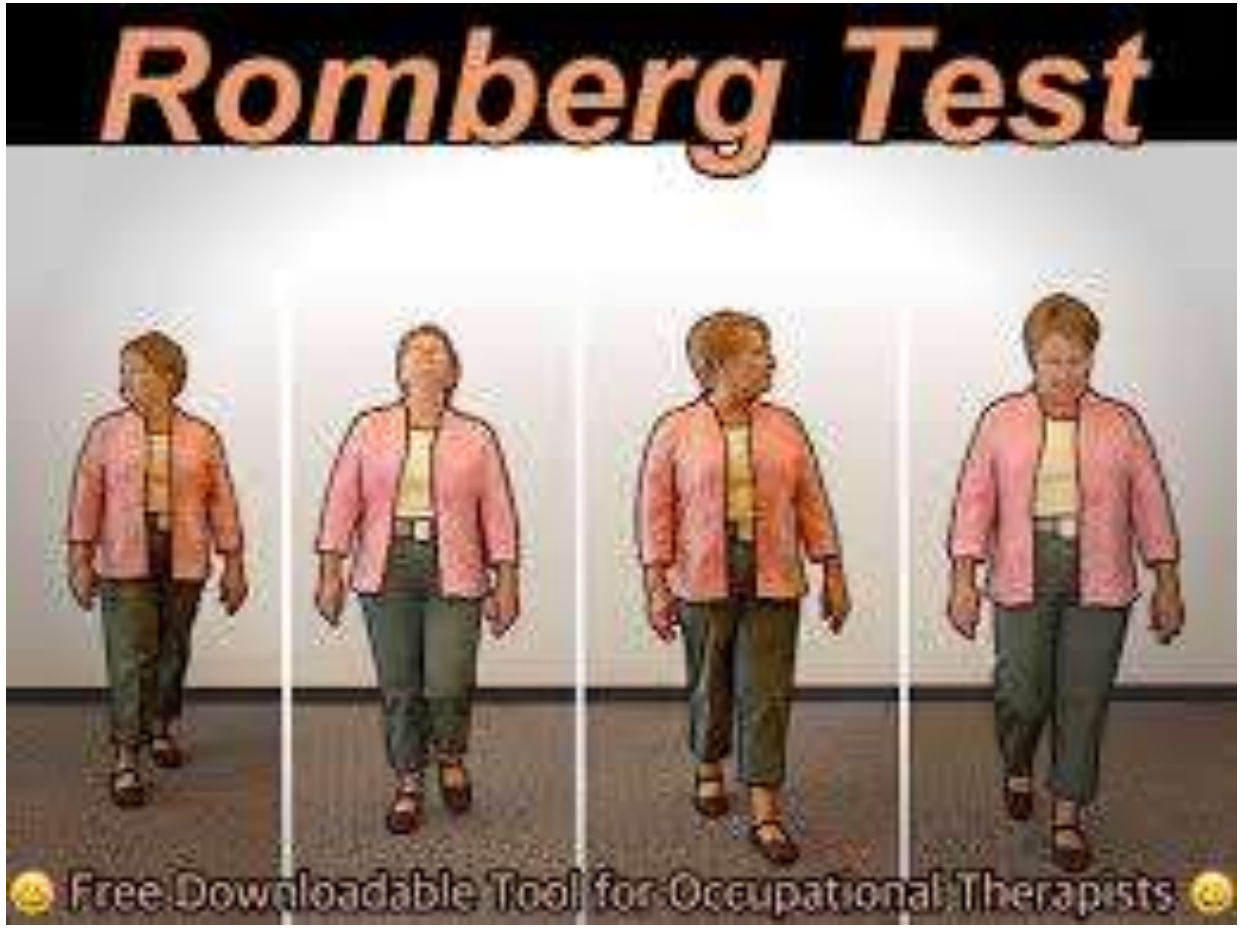


COORDINATION & CEREBELLAR ASSESSMENT

FINGER-TO-NOSE • HEEL-TO-SHIN • RAPID ALTERNATION • NYSTAGMUS

ROMBERG & BALANCE ASSESSMENT

POSTURAL STABILITY • EYES OPEN/CLOSED • PROPRIOCEPTION EVALUATION



GAIT ANALYSIS & ASSESSMENT

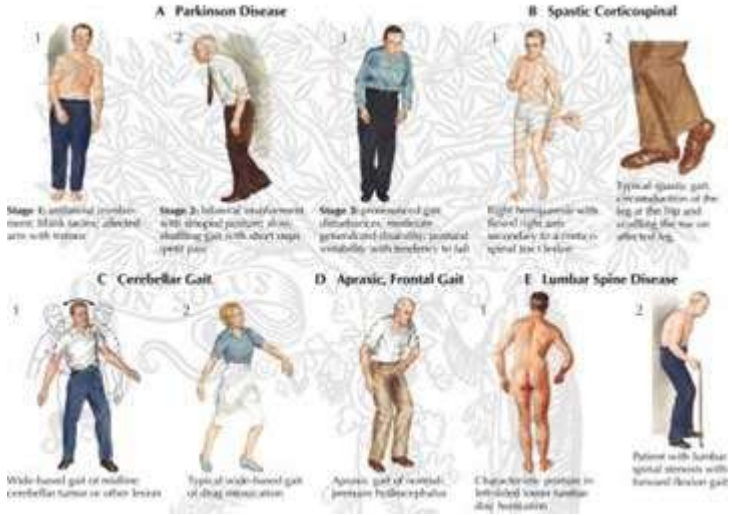
STANCE • SWING • VELOCITY • PATTERN RECOGNITION • ABNORMALITY DETECTION

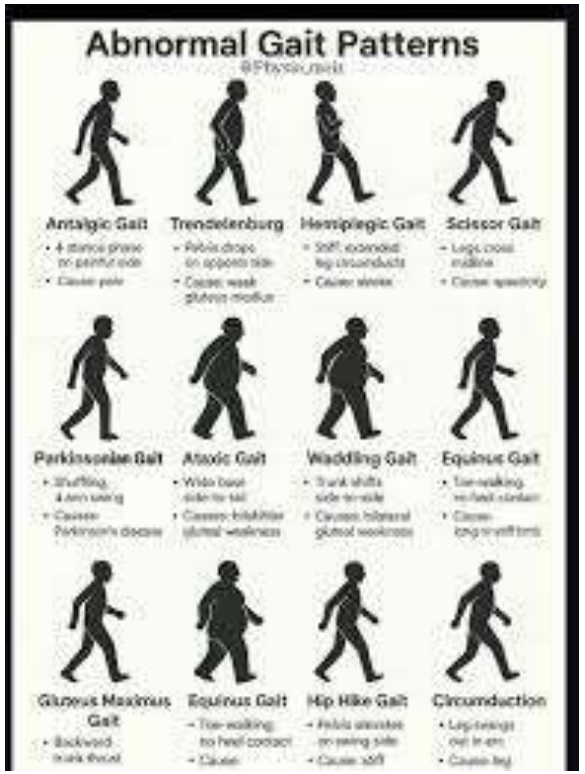
3D GAIT ANALYSIS PARAMETERS

KINEMATICS • KINETICS • CADENCE • STRIDE LENGTH • BALANCE

ABNORMAL GAIT PATTERNS

- Hemiplegic gait
- Scissor gait
- Ataxic gait
- Parkinsonian gait
- Steppage gait
- Antalgic gait
- Cerebellar dysfunction
- Spastic patterns





SPECIAL TESTS & CLINICAL SIGNS

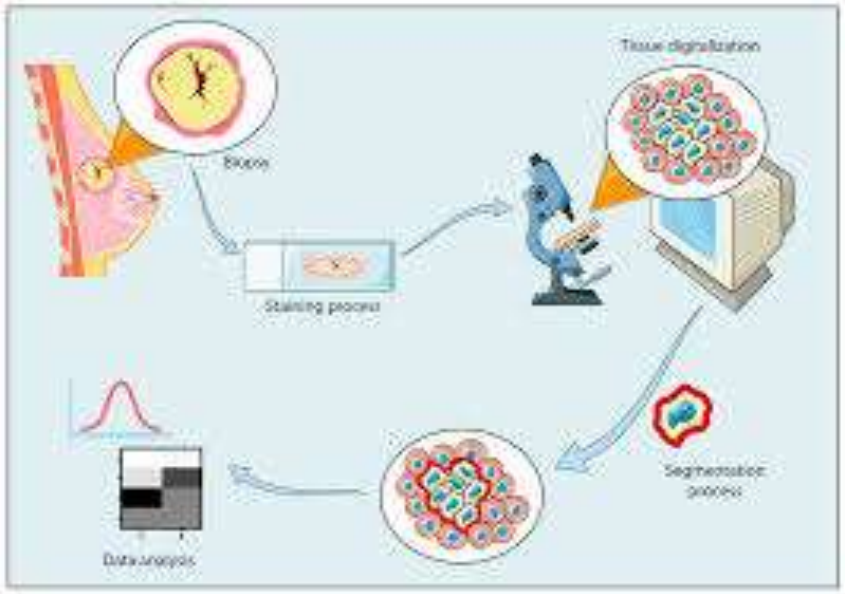
- Babinski sign
- Clonus
- Hoffmann's reflex
- Glasgow Coma Scale
- Pronation drift
- Meningeal signs
- Tremor assessment
- Rigidity grading
- Fasciculations

STANDARDIZED SCALES & TOOLS

- Glasgow Coma Scale (GCS)
- NIHSS
- Fugl-Meyer
- Berg Balance Scale
- Timed Up & Go
- Functional Reach
- Star Excursion Balance Test
- Y-Balance Test
- SEBT

DOCUMENTATION & CLINICAL REASONING

- Systematic documentation
- Pattern recognition
- Anatomical correlation
- Pathology localization
- Functional implications
- Rehabilitation planning



INCLASS ASSESSMENT

1. **A bedside test that MOST specifically evaluates cerebellar limb coordination is:**
   A. Romberg test with eyes closed
   B. Finger–nose–finger test and heel–shin test
   C. Testing tone and deep tendon reflexes
   D. Testing visual fields by confrontation

2. **A broad-based, unsteady gait with difficulty in tandem (heel-to-toe) walking is MOST suggestive of:**
   A. Hemiplegic gait due to corticospinal lesion
   B. Sensory ataxic gait due to posterior column lesion
   C. Cerebellar ataxic gait
   D. Parkinsonian gait

3. **Apraxia as a higher cortical dysfunction is BEST defined as:**
   A. Inability to walk due to weakness of lower limbs
   B. Inability to perform learned purposeful movements despite intact motor power, sensation, and comprehension
   C. Inability to understand spoken language despite fluent speech
   D. Inability to maintain attention for more than a few seconds

INCLASS ASSESSMENT

4. **During bedside testing for limb apraxia in a right-handed patient, the MOST appropriate task is:**
   A. Asking the patient to walk heel-to-toe along a straight line
   B. Asking the patient to detect vibration at the medial malleolus
   C. Asking the patient to demonstrate how to use a comb or brush without the object in hand (pantomime)
   D. Asking the patient to track a moving finger with their eyes

5. **A shuffling gait with reduced arm swing, stooped posture, short steps, and difficulty initiating walking is MOST characteristic of:**
   A. Cerebellar ataxic gait
   B. Parkinsonian gait
   C. Spastic diplegic gait (“scissoring”)
   D. Waddling myopathic gait

INCLASS ASSESSMENT

ANSWERS

1. B. Finger–nose–finger test and heel–shin test.
2. C. Cerebellar ataxic gait.
3. B. Inability to perform learned purposeful movements despite intact motor power, sensation, and comprehension.
4. C. Asking the patient to demonstrate how to use a comb or brush without the object in hand (pantomime).
5. B. Parkinsonian gait.

THANK YOU!!!!

References Books:

- Hankey Greame - Clinical Neurology
- Bickerstaff - Clinical Neurological Examination
- Dejongs - Neurological Examination
- Demyers - The Neurologic Examination
- Snell - Clinical Neuroanatomy - 7th Ed
- Satish Khadilker - Neuromuscular Disorders
- Vishram Singh - Texbook of Clinical Neuro Anatomy 2nd edition
- Kenneth W. Lindsay - Neurology and Neurosurgery Illustrated