



Dale Johnson

INTERNAL MEDICINE CLINIC

Dale Johnson, a 56 y.o. male, presents to the Wesford Internal Medicine Clinic as a new patient with a complaint of headache. His headache has resolved now but it was more severe than he has ever experienced before. Dale has not seen a primary care provider for about thirty years. Dale filled out a new-patient intake form, providing the following brief details regarding his history.

MEDICATIONS

- None.

ALLERGIES


- NKDA.

PAST MEDICAL HISTORY

- Dale states he has no known medical problems. He has never been hospitalized as an adult.



**STANDARDIZED
PRECEPTOR
ORIENTATION**

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PAST SURGICAL HISTORY

- Tonsillectomy, at age 11—no complications.

PREVENTIVE MEDICINE

- None in 30 years.

HABITS

- Nonsmoker, no history of tobacco use.
- He states he drinks beer “socially and on WSU game days” and “I like Scotch.”
- He states also that since it has been legalized in Washington, he regularly uses marijuana, “to help with nerves”—mostly by smoking but sometimes he uses edibles.
- Alcohol and marijuana: “Really help me unwind after work.”
- Dale’s diet is not always healthy; he is trying to wean from fast food, do more cooking at home, and trying to eat more vegetables.

FAMILY HISTORY

- Mother died at age 80 of ovarian cancer.
- Father died “in his sleep” in his early 50s. Dale has no idea why he died.
- Sister—diagnosed with Behçet syndrome in her 30s.



SOCIAL HISTORY

- Dale is a WSU graduate!
- He works as a manager in the agriculture/food manufacturing industry.
- He has been divorced for the last 10 years.
- He has two adult children—his daughter lives in Wesford. His son lives in Seattle.
- For fun, he likes to talk online and play video games.
- He reports he gained about 30 pounds in the year or two after his divorce, but his weight has stabilized, and he states he has “been trying” to be more active lately.

Guidance for the Neurologic Examination: Art & Practice of Medicine Component of the Curriculum

9 PARTS OF THE NEUROLOGIC EXAM

1. Mental status
2. Station and gait
3. Skull and spine
4. Meninges
5. Cranial nerves
6. Motor
7. Sensory
8. Coordination
9. Reflexes

MENTAL STATUS

- Level of consciousness
 - Alert
 - Lethargic
 - Somnolent
 - Unconscious
- Orientation
 - Person
 - Place
 - Time
- Thought processes
 - Linear, logical
 - Tangential
 - Hallucinations, delusions

STATION AND GAIT

- Station
 - Romberg: Position sense (proprioception)
 - Stand feet together, eyes open, then eyes closed
 - Pronator drift: Close eyes, arms out in front, palms up, then tap each arm and watch return
- Gait
 - Walk up and down hall (arm swing, balance, leg movements, balance [in turns])
 - Heel walk: Tests balance, dorsiflexion strength and accentuates arm swing
 - Toe walk: Tests plantar flexion and balance
 - Tandem walk (heel-toe-heel walk): Cerebellar function, position sense
 - Hop in place, 1 leg at a time
 - Shallow knee bend, 1 leg at a time

SKULL AND SPINE (OFTEN IN TRAUMA)

- Palpation for:
 - Defects
 - Deformity
 - Tenderness

MENINGES (MENINGEAL IRRITATION)

- Brudzinski's: Flex neck; if hips and knees flex, it is positive
- Kernig's (knee): Flex knee and hip, then extend knee; positive if extension is resisted

CRANIAL NERVES

- I: Olfactory—each nostril separately
- II: Optic (vision)
 - Visual acuity
 - Visual fields
 - Funduscopy
 - Pupillary response (afferent)
- III, IV, VI: (Oculomotor—pupils and med & inf rectus & med & inf oblique, trochlear—sup oblique, abducens—lat rectus)—EOMs “H”—6 cardinal directions of gaze
 - Pupillary response (efferent—III)
 - Diplopia
 - Accommodation
 - Nystagmus (horizontal, vertical or rotary): Described by direction of quick phase
 - Ptosis (III)
- V: Trigeminal
 - Motor: Muscles of mastication
 - Sensory: 3 divisions—ophthalmic, maxillary, mandibular
 - Sharp/dull
 - Light touch
 - Can augment with hot/cold if abnormality suspected
 - Corneal reflex (sensory: V, motor: VII)
- VII: Facial
 - Motor: Facial movements and expressions
 - Look for asymmetry or involuntary movements
 - Eyebrows, eyelid closure, grimace (show teeth), puff cheeks
 - Sensory: Taste sensation in ant 2/3 of tongue
- VIII: Acoustic—hearing and vestibular function
 - Whispered voice, if decreased in one:
 - Conductive
 - Rinne (fork over mastoid and then ear): air vs bone conduction (normally AC>BC)
 - Sensineural
 - Weber (fork top of head): Lateralization to ear if conductive hearing loss (BC>AC) and to opposite ear if SNHL (not heard in ear with SNHL)
- IX, X: Glossopharyngeal and vagus—palate, pharynx and larynx
 - Say *ah*: Uvula midline, soft palate rises symmetrically
 - Gag reflex
- XI: Spinal accessory—upper trap and SCM
 - Shrug shoulders
 - Rotate head to either side against resistance
- XII: Hypoglossal—tongue
 - Inspect for symmetry, fasciculations
 - Protrude tongue; look for deviation (can test motor through each cheek)

MOTOR

- Inspection: body position, involuntary movements, tone (passive ROM) and bulk of muscles
- Strength: Dominant usually sl stronger
 - Grading strength
 - 5: Normal—active movement against resistance with no fatigue
 - 4: Active movement against gravity with some resistance
 - 3: Active movement against gravity
 - 2: Active movement with gravity eliminated
 - 1: Barely detectable flicker or trace of contraction
 - 0: No muscular contraction detected

SENSORY

- Pain: Sharp/dull (swab)
- Light touch (cotton wisp)
- Temperature
- Vibration: Largest tuning fork stem over bony prominences
- Position sense (proprioception)
- Stereognosis (identify objects)
- Graphesthesia (draw numbers in palm)
- 2 point discrimination
- Point localization
- Extinction (one or both sides)

COORDINATION (MOTOR, CEREBELLAR, VESTIBULAR, SENSORY)

- Rapid alternating movements
 - Fingers to thumb sequentially
 - Palms on thighs
 - Hands on thighs, palms-dorsum-palms
- Point-to-point movements
 - Finger-nose-finger
 - Heel-knee-shin

REFLEXES

- Biceps: C5, C6
 - Brachioradialis: C5, C6
 - Triceps: C6, C7
 - Knee: L2-L4
 - Ankle: L5, S1
- Graded
 - 0: No response
 - 1+: Diminished
 - 2+: Average, normal
 - 3+: Brisk
 - 4+: Very brisk, hyperactive response, with clonus
- Babinski (upgoing is abnormal)