BNURS506 Quiz Answering

Term: Spring 2025
Module 4: Musculoskeletal & Neurologic Systems
Name: Student J

#:	Your Answer	Feedback from Grader	Score
1	"The doctor is testing baby's reflexes, specially looking for Babinski sign. He gently strokes the outer side of the foot from the hell to the ball and then across the foot to the inside. It's normal for babies' toes to fan out when this happens and is a sign of normal neurological development. At around 2 years old, babies lose this reflex. Which is why you, an adult, don't elicit the same response. Normally, when this test is done with adults, the toes curl downward. If adults do have this response, it may be a sign of neurological issue, and they should consult a doctor." References: Ball, J. W., Dains, J. E., Flynn, J. A., Solomon, B. S., Stewart, R. W., & Seidel, H. M. (2023). *Seidel's guide to physical examination* (Tenth edition.). Elsevier. Feedback: I liked that your question was formatted as patient education! One idea to add to this question would be to ask about other common infant reflexes that are different than older children or adults.	Grading Criteria: Identify Babinski test positive in infancy vs adulthood (6 pts) Explanation to parent easy to understand (2 pts) Mention maturation/myelination of nervous system (1 pt) Implication of positive test in adults (*) Proper APA formatting (1 pt) Thanks for the feedback! You did a good job calling out the difference in an adult exam vs an infant exam though I was looking for the etiology of the difference in exam - the maturation/myelination of the nervous system (-1 point). Your explanation was easy to understand for a non-medical professional. You also did a great job calling out that a positive sign in adults is indicative of an underlying issue. I was hoping that would be part of the answer, but I didn't specifically call it out.	8.5/ 10

		I'm removing 1 point for not mentioning that and 0.5 points for lack of in-text citation. All in all, great work!	
2			/ 10
3	B. Tardive dyskinesia Jane presents with common signs of TD including facial dyskinesia (protruding/twisting tongue, lip smacking, grimacing) and dystonia (twisting her hands, "piano playing" fingers). Patient with longer use of first-generation antipsychotics, like Haldol, have an increased risk for developing TD. First, the nurse should expect to discontinue or reduce the dosage of Haldol and attempt switch to a second-generation antipsychotic like risperidone or olanzapine. By discontinuing or reducing Haldol, this reduces the likelihood of further TD symptoms which may become permanent. Switching to a second-generation is appropriate because they carry less risk of causing TD symptoms. Secondly, to treat TD symptoms, the doctor may prescribe valbenazine or deutetrabenazine. Early identification is essential to reverse TD. Not addressing Jane's TD could lead to permanent TD symptoms which could cause functional disability with eating, mobility, and speaking. References: Diek, A. (2024). Tardive dyskinesia: etiology, risk factors, clinical features, and diagnosis. *UpToDate*. Retrieved from https://www-uptodate-com /contents/tardive-dyskinesia-etiology-risk-factors-clinical-features-and-diagnosis Feedback: Your question had a good balance of difficulty and addressed the pharmacology of antipsychotics. You also touched on how mental health patients are stigmatized as attention seeking. Awesome job!	Multiple Choice & Rationale: 4/4 Treatment & Rationale: 3/3 Long-term effects: 2/2 APA Format: 0.25/1 Rationale for Point Deduction APA Format: no in-text citations & reference missing the date it was retrieved Great job with your answer! One thing to note for switching antipsychotics is that not all second gen antipsychotics hold the same risk of TD, and Seroquel, pimavanserin, and Clozaril hold the lowest risk of TD. Also, while I didn't specifically ask for it, another risk of not treating TD in this patient in particular is increased risk of suicide. People with borderline personality disorder are already at a higher risk of suicide. If you add the potential psychological distress that the symptoms of TD can cause, the patient would be at an even higher risk of attempting to commit suicide due to the noted impulsivity seen in the condition.	9.25 / 10
4			/ 10

5	Shaynenalyn likely has carpal tunnel syndrome (CTS) which would explain her symptoms: numbness/tingling/burning of hands (especially at night), pain that radiates from hand up the arm, thenar muscle wasting, and weakness in the thumb. Risk factors include genetic predisposition, diabetes mellitus, osteoarthritis, rheumatoid arthritis, obesity, thyroid disease, pregnancy, wrist trauma, occupational work that involves repetition/exertion/vibration of hand or wrist. Part of the clinical exam to determine CTS is to assess sensation in all regions of bilateral hands, forearms, and upper arms. Also, checking for weakness in thumb abduction and opposition. In addition, a Phalen maneuver can be performed by having patient bring dorsal surfaces of hand against each other to provide hyperflexion of wrist while elbows remain flexed. A positive sign is defined as pain and/or paresthesia in the median-innervated fingers. References: Kothari, M. (2024). Carpal tunnel syndrome: pathophysiology and risk factors. *UpToDate*. Retrieved from https://www-uptodate-com/contents/carpal-tunnel-syndrome-pathophysiology-and-risk-factors Kothari, M. (2024). Carpal tunnel syndrome: clinical manifestations and diagnosis. *UpToDate*. Retrieved from https://www-uptodate-com/contents/carpal-tunnel-syndrome-clinical-manifestations-and-diagnosis Feedback: Your question had a good balance of difficulty in pathophysiology! One idea to add to this question in the future would be to ask the learner about patient education could the nurse provide.	Overall, you have given me the needed answers. I was specifically looking for both Phalen and Tinel's signs but still gave you full points as I only asked for at least one clinical exam needed to evaluate CPS. Just additional reference: According to Asquith Health Collective. (n.d.)., there are several methods used to diagnose Carpal Tunnel Syndrome which includes the following: · Medical history: They'll ask about your symptoms, when they started, and how they affect your daily life. · Physical examination: Your Physiotherapist or Chiropractor will check your hand, wrist, arm, and neck for signs of carpal tunnel syndrome. · Specific tests: There are several tests that can help diagnose carpal tunnel syndrome, such as: · Tinel's sign: Tapping on the median nerve to see if it causes tingling in the fingers · Phalen's maneuver: Holding the wrists in a flexed position to see if it causes symptoms	10/ 10

		· Two-point discrimination test: Checking if you can feel two separate points of pressure close together · Nerve conduction studies: These tests measure how well your median nerve is working. Imaging tests: In some cases, X-rays, ultrasound, or MRI scans may be recommended	
6			/ 10
7	C. Lumbar disc herniation with sciatic nerve involvement Sciatica or sciatic nerve involvement causes lower back pain that radiates down the leg to the ankle. It's commonly cause by lumbar disc herniation, particularly at L5-S1, typically due to injury (heavy lifting). It would also explain decreased sensation changes (numbness and tingling). Intervertebral disc herniation can cause cauda equina syndrome, which is an emergency that requires immediate surgical decompression. It's due to a massive compression of the cauda equina nerves located in the lower spine. It presents as low back pain that radiates to one or both legs, foot weakness, bladder/bowel sphincter paralysis, and sensory loss. Prompt intervention is needed to prevent permanent paralysis, incontinence, and sexual dysfunction. References: Hsu, P., Armon, C., & Levin, K. (2024). Acute lumbosacral radiculopathy: etiology, clinical features, and diagnosis. *UpToDate*. Retrieved from https://www-uptodate-com/contents/acute-lumbosacral-radiculopathy-etiology-clinical-features-and-diagnosis Bevers, M., Jolanda van Zuuren, E., & Rae-Grant, A. (2025). Cauda equina syndrome. *DynaMedex*. Retrieved from https://www-dynamedex-com/condition/cauda-equina-syndrome	Congrats! You mentioned everything I was looking for. Also, thank you for the feedback.	10/ 10

	Feedback: I loved this question! I've worked in neurosurgery for 4 years now and I've cared for many patients with radiculopathies, cauda equina syndrome, post spinal decompression. You did an excellent job creating a question that discussed pathophysiology and potential emergent situations with a perfect amount of difficulty!		
8			/ 10
9	Uncle is displaying symptoms of Parkinson's Disease which includes resting tremors (hands), bradykinesia (slow movements), postural instability (slight bent posture, reduced arm swing), rigidity (stiffness), dexterity impairment (trouble picking up cup), shaky voice, and decreased facial expression (Chou, 2024). Diagnosis is usually made clinical history and neurologic exam. Response to dopaminergic therapy is a supportive sign of PD. Brain MRIs can be used to rule out other neurologic disorders or causes (Orrgange et al, 2025). Initial treatment for PD includes dopaminergic medications such as cabidopa/levodopa. Nonpharmacological treatment could include deep brain stimulation which are for patients whose symptoms are not adequately controlled by medication (Orrange, 2025). References: Chou, K. (2024). Diagnosis and differential diagnosis of Parkinson disease. *UpToDate*. Retrieved from https://www-uptodate-com/contents/diagnosis-and-differential-diagnosis-of-parkinson-disease Orrange, S., Hui, J., Yu, X., & Jolanda van Zuuren, J. (2025). Parkinson disease. *DynaMedex*. Retrieved from https://www-dynamedex-com /condition/parkinson-disease Feedback: Your question had a great scenario that provided lots of detailed information that helped me identify the patient's condition. One idea to add	Nice work with your answers. They were very succinct but answered all necessary components. I appreciate your use of in-text citations as well. Thanks for your feedback!	10/ 10

	to the question in the future is patient education regarding disease progression.		
10			/ 10
11	FAST is a quick stroke recognition tool and stands for Face (droop, asymmetry), Arms (weakness, drift), Speech (slurred, aphasia), and Time (not symptom, but reminder to assess last known well). A positive FAST indicates likelihood of stroke. LAMS (Los Angelos Motor Scale) is a tool to determine if patients have large vessel occlusion (LVO) and scores based on facial droop, arm drift, and grip strength. Higher scores mean likelihood of LVO and potential candidate of mechanical thrombectomy (Goldstein, 2025). The patient likely has an acute ischemia occlusion. The patient is presenting with left facial droop, left arm and grip weakness, and aphasia which are signs of stroke. LAMS score of 4 indicates likely LVO. Elevated blood pressure is to compensate for blockage of blood flow. Normal blood sugar rules out hypoglycemia which can present with similar symptoms (Sico et al, 2025). It is likely that the patient has a right middle cerebral artery (MCA) occlusion, because the MCA artery supplies the frontal lobe parietal love, and cortical surfaces of temporal lobe thus presenting with left sided hemiparesis and alterations in communication (Ball et al, 2023). One option is IV Tenecteplase which is a clot buster medication given to patients with symptom onset less than 4 hours. The second option is mechanical thrombectomy if CTA confirms LVO and if patient's symptoms started within 24 hours (Sico et al, 2025). References: Ball, J. W., Dains, J. E., Flynn, J. A., Solomon, B. S., Stewart, R. W., & Seidel, H. M. (2023). *Seidel's guide to physical examination* (Tenth edition.). Elsevier. Goldstein, L. (2025). Use and utility of stroke scales and grading systems. *UpToDate*. Retrieved from https://www-uptodate-com/contents/use-and-utility-of-stroke-scales-and-grading-systems	Excellent answers that touched on all the points I was looking for. I liked how you even discussed ruling out hypoglycemia. Did you know a blood sugar is the only lab absolutely needed before treating with thrombolytics? Awesome work naming the new thrombolytic, Tenecteplase, which has replaced alteplase (tpa) in many hospital systems.	10/ 10

	Sico, J., Toth, G., George, D., & Lang, E. (2025). Acute ischemic stroke. *DynaMedex*. Retrieved from https://www-dynamedex-com/condition/acute-ischemic-stroke Feedback: Your question had a good mix of symptom identification, advanced pathophysiology, and treatment. I've worked in med/surg neuro and this a great refresher especially for FAST acronym.		
12			/ 10
13	To rule of compartment syndrome of the right arm, a nurse would assess: - Pain: severe, deep, persistent pain that is disproportionate to the injury, especially with passive stretching of hand/wrist - Paresthesia: numbness or tingling could indicate nerve compression - Pallor: pale or dusky color could indicate lack of blood flow - Pulse: diminished or absent pulse is a late sign - Paralysis: inability to wiggle fingers is alarming - Pressure: tenseness or firmness could indicate pressure - Temperature: coolness suggests poor circulation For patients with compartment syndrome that persists, the definitive treatment is fasciotomy which is incisions to the fascia to relieve intramuscular pressure and restore circulation. This is done to prevent permanent muscle/nerve damage caused or loss of limb function. References: Hammerberg, M. (2025). Acute compartment syndrome of the extremities. *UpToDate*. Retrieved from https://www-uptodate-com/contents/acute-compartment-syndrome-of-the-extremities Lin-Matore, M., Sherman, S., & Chin, R. (n.d). Acute compartment syndrome – emergency management. *DynaMedex*. Retrieved from https://www-dynamedex-com/management/acute-compartment-syndrome-emergency-management	Nursing assessments to rule out compartment syndrome include: - Evaluate for pain that is out of proportion to the injury, and/or unrelieved by analgesics and worsened by movement of Tony's fingers - Assess for numbness, tingling - Assess for motor weakness. - Pulse assessment is important but likely impeded by Tony's cast. - Cap refill of the fingers - Assess for swelling - Assess for changes in color/palor of the skin - Temperature: assess for coolness of the skin (7.5 /8 - Missing cap refill which is important) If Tony's symptoms persist after removal or bi-valving the cast, the	9.5/ 10

	Feedback: This question had a good mix of assessment and pathophysiology! I've only ever had one patient that had compartment syndrome and post-fasciotomy. It was an unfortune accident. One idea to add to the question in the future is to ask the learner about post-fasciotomy care.	definitive treatment for compartment syndrome is emergent decompressive fasciotomy. In this procedure the fascia is surgically opened to relieve pressure in the affected limb/compartment, thus restoring perfusion and preventing irreversible damage. Untreated compartment syndrome can lead to muscle necrosis, permanent motor/sensory deficits, and loss of the affected limb. (2/2 points)	
14			/ 10
15	The patient most likely has acute gout which was most likely triggered by consuming high purine food (pork and liver) and drinking beer. Acute gout presents as sudden pain in the metatarsophalangeal joint, visible redness, and swelling. Consuming high purine foods can trigger a uric acid spike which cause crystals to deposit in the joint. Serum urate levels can be normal during an acute flare. Also, Asian Americans are at higher risk for developing gout. The first-line medication for acute gout episode is NSAIDs, like naproxen, to reduce inflammation and pain. The patient may also be prescribed a low dose of colchicine along with NSAIDs which aids in reducing inflammation Non-pharmacological treatments include rest and elevation of the affected extremity to decrease swelling, ice pack to reduce pain, hydration, and avoidance of purine-rich foods during acute flare and limited purine-rich food intake for prevention. References: Mandell, B., McLean, R., Roberts, J., & Fedorowicz, Z. (2024). *DynaMedex*. Retrieved from https://www-dynamedex-com./management/management-of-acute-gout	#1: Correct diagnosis and correct identification of provoking factors mentioned in patient's history – 4/4 pts #2: Correct identification of medication – 2/2 pts #3: Correct identification of nonpharmacologic strategy to include in patient's education – 2/2 pts References: 0.5 pt In-text citations:0/0.5 pt Great job on hitting all the important points in your answers. I took off 0.5 pts due to the absence of in-text citations. Thank you for the feedback.	9.5/ 10

	Gaffo, A. (2025). Gout: clinical manifestations and diagnosis. *UpToDate*. Retreived from https://www-uptodate-com/contents/gout-clinical-manifestations-and-diagnosis Feedback: This question had a good mix of pathophysiology, pharmacology, and patient education! I like that you put that uric acid levels were normal because it didn't realize that was normal for early gout flare. One idea to add for this question in the future is asking the learner about differential diagnosis that could be consider given than gout symptoms can be similar to other conditions such as cellulitis.		
16			/ 10
17	Gary likely sustained a femur fracture which is indicated in the x-ray. The nurse would assess circulation, motor, and sensory of the left leg. This type of fracture typically presents as pain, swelling, and possible deformity (shortening of the thigh). In addition, femur fracture could have tissue injury and bleeding although this was not the case in this scenario. Two non-pharmalogical treatments can include cold therapy with ice and elevation of the leg to reduce swelling. IMN (intramedullary nailing) is minimally invasive orthopedic surgy in which a metal rod is inserted into the marrow canal to stabilize and align the fracture. This allows for early mobilization and has low rates of complication for this type of fracture. References: Asplund, C. & Mezzanotte, T. (2025). Midshaft femur fracture in adults. *UpToDate*. Retrieved from https://www-uptodate-com/contents/midshaft-femur-fractures-in-adults Siegal, M., Qaseem, A., & Ehrlich, A. (2024). Femoral shaft fractures in adults. *DynaMedex*. Retrieved from https://www-dynamedex-com/condition/femoral-shaft-fractures-in-adults Feedback:	Great job on your succinct and very to-the-point answer! You hit all the main points, correctly identifying the go-to nonpharmacological pain interventions as well as what IMN is. Thank you so much for your feedback and the great idea about including PE. So sorry to hear about your coworker! Just another reason I will never ride an e-scooter.	10/ 10

	I appreciate the simplicity of this question but still addresses advanced knowledge of pathophysiology. It's interesting because I had a coworker who had this type of injury after being hit by a motor vehicle while she was riding her electric scooter to work! One idea to add to the question in the future would be to include a question regarding PE as a complication of long bone fracture.		
18			/ 10
19	Given is history of diabetes, PVD, and smoking, John likely has a diabetic foot ulcer with suspected osteomyelitis. OM presents as a deep, open sore, often with visible bone and surrounding skin is warm, red, and swollen. It can also cause a low-grade fever as well. Diabetic foot infections are cause by microorganisms that invade tissue following a break in the skin, often from diabetes foot ulcer. High glucose levels related to diabetes impairs leukocyte function and delays wound healing. Peripheral vascular disease reduced blood supply leading to tissue hypoxia. In combination, the promotes spread of infection to underlying fascia, tendons, muscles, joints, and bones. Antibiotic therapy is the standard treatment for OM. The provider may start with empiric therapy, vancomycin, and change to another antibiotic, like ceftriaxone, for gram-negative infections. One patient education I would teach is how to complete daily foot inspections by instructing him to look at his feet daily with a mirror and to watch for wounds. Another patient education would be to give information regarding smoking cessation and glucose control. This is because both can cause poor wound healing. References: Pile, J., Ridzon, R., Jolanda van Zuuren, E., & Prasad, P. (2025). Osteomyelitis in adults. *DynaMedex*. Retrieved from https://www-dynamedex-com/condition/osteomyelitis-in-adults Weintrob, A. (2024). Diabetic foot infection, including osteomyelitis: clinical manifestations and diagnosis. *UpToDate.* Retrieved from		/ 10

	https://www-uptodate-com/contents/diabetic-foot-infection-including-osteomyelitis-clinical-manifestations-and-diagnosis Feedback: This was a great comprehensive question! I liked how you added pathophysiology, pharmacology, and patient education. One idea to add to the question in the future would be to be more specific with the first question. I wasn't sure if I should just put osteomyelitis or diabetic food ulcer with OM.		
20			/ 10