

BNURS506 Quiz Answering

Term: Spring 2025

Module 1: Cranial Nerves & Mental Health

Name: Student N

#:	Your Answer	Feedback from Grader	Score
1	1. Which cranial nerve is commonly linked to Bell's palsy and how would you assess this cranial nerve? Bell's palsy or idiopathic facial nerve palsy involves cranial nerve VII (facial nerve). Facial weakness evaluation involves assessing both the resting face and facial movements. Ipsilateral findings may include widening of the palpebral fissure with drooping of the lower eyelid, eyebrow ptosis, absence of the nasolabial fold, and mouth drooping. To evaluate facial movement, observe the patient's ability to close their eyes, raise their eyebrows, frown, smile, pucker their lips, and tense the neck muscles to check for platysma activation. Taste function can be tested by placing a small amount of sugar (or sugary solution) on the anterior portion of the ipsilateral side of the tongue and asking the patient to assess the taste. A second sample is then placed on the anterior portion of the contralateral side, and the patient compares the taste between both sides to identify any lateralized taste impairment. 2. Though definitive etiology is undetermined, based on patient's history, what could have possibly triggered her current medical condition? The upper respiratory tract infection may have triggered her current medical condition. An inflammatory response to other viral infections besides Herpes simplex virus activation has been associated with facial palsy.	You've done a great job in this assignment and clearly understood the scenario and questions. Your answers captured the needed assessments as well as the physiology and pharmacology in these scenario-based questions. I applaud you for citing your answer to the third question in APA-style in-text citation, Fantastic job! Kudos! Thank you for your feedback as well to this question.	10/ 10

	3. Why were prednisone and valacyclovir prescribed for this patient? A short-term course of glucocorticoids such as prednisone is recommended for all patients with new-onset Bell's palsy. Strong evidence from randomized trials (Gronseth & Paduga, 2012) indicates that early use of glucocorticoids enhances outcomes in patients with Bell's palsy. It is still unclear whether antiviral therapy provides additional benefits when combined with glucocorticoids in patients with new-onset Bell's palsy, despite numerous trials and a strong rationale. If there is any benefit, it is likely to be smaller and more incremental compared to the effects of glucocorticoids alone. References: Gronseth, G. S., & Paduga, R. (2012). Evidence-based guideline update: Steroids and antivirals for Bell palsy: Report of the Guideline Development Subcommittee of the American Academy of Neurology. <i>Neurology</i>, 79(22), 2209–2213. https://doi.org/10.1212/WNL.0b013e318275978c Ronthal, M. & Greenstein, P. (2023). Bell's palsy: Treatment and prognosis in adults. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/bells-palsy-treatment-and-prognosis-in-adults Feedback: The clinical scenario was well-described and the questions were well-constructed. I learned about the assessment, etiology, and treatment of the condition.		
2			/ 10

	References: Feedback:		
3	References: Feedback:		/ 10
4	What assessment findings would indicate that there was cranial nerve dysfunction as a result of the surgery and/or post-op swelling? Resection of cerebellopontine angle lesions can result in significant lower cranial nerve damage (cranial nerves IX, X, XI, XII) resulting in findings of hemifacial weakness, dysarthria, dysphagia, or hearing loss (Upadhyaya & Tinkle, 2025). What are other symptoms of posterior-fossa syndrome (also called post-operative cerebellar mutism syndrome (pCMS)? Posterior fossa syndrome or post-operative cerebellar mutism refers to the complex neurological constellation that occurs following a delay after the	You did an excellent job correlating the potential symptoms/dysfunction to the respective nerves associated. You also included a thorough description of posterior fossa syndrome, particularly the potential long-term effects. Calling out the risks of the surgical location (proximity to brainstem) would enhance your answer even more. Great use of APA formatting and in-text citations.	10/ 10

	surgical resection of cerebellar and fourth ventricular tumors comprising of mutism, cranial neuropathies, long tract signs, cerebellar motor phenomena, and neuropsychiatric and cognitive changes (Schmahmann, 2020). This is characterized by impaired language production with emotional lability. Patients may also have varied degrees of inattention or difficulty in initiating movement, cranial nerve palsies, or bowel and bladder incontinence. These patients are also at increased risk of long-term neurocognitive dysfunction which includes lower scores on measures of intellectual ability, processing speed, and attention (Fangusaro, 2025). References: Fangusaro, J. (2025). Treatment and prognosis of medulloblastoma. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate-com/contents/treatment-and-prognosis-of-medulloblastoma Schmahmann, J.D. (2020). Pediatric post-operative cerebellar mutism syndrome, cerebellar cognitive affective syndrome, and posterior fossa syndrome: Historical review and proposed resolution to guide future study. <i>Childs Nerv Syst</i>, 36, 1205–1214 (2020). https://doi-org.offcampus.lib.washington.edu/10.1007/s00381-019-04253-6 Upadhyaya, S. A. & Tinkle, C. (2025). Intracranial ependymoma and other ependymal tumors. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate-com/contents/intracranial-ependymoma-and-other-ependymal-tumors Feedback: The question allowed me to explore the assessment of all cranial nerves which is really helpful.		
5			/ 10

	For the evaluation of children with apparently minor head trauma is to identify those with traumatic brain injury (TBI) who require immediate intervention, hospitalization for monitoring, or close follow-up. Evaluation should include history, physical examination, and neuroimaging. History should include time of the event, injury mechanism, loss of consciousness (LOC), vomiting, seizure, mental status, and course since the event of said trauma. A thorough head and neurological examination should be performed. This should also include vital signs and evidence of extracranial injury. The following findings raise concern for a clinically important traumatic brain injury (ciTBI): persistent Glasgow Coma Scale [GCS] score ≤ 14, palpable skull depression or irregularity, or signs of basilar skull fracture (periorbital ecchymosis, battle sign, hemotympanum, cerebrospinal fluid otorrhea, or CSF rhinorrhea. High-risk findings warrant neuroimaging (Schutzman, 2024). References: Schutzman, S. (2024). Minor blunt head trauma in children (≥ 2 years): Clinical features and evaluation. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/minor-blunt-head-trauma-in-children-2-years-clinical-features-and-evaluation Feedback: The question allowed me to consider a wide variety of differential diagnoses which made me deep dive into the world of neurologic assessment/physical examination.		
6	Vasovagal syncope happens where a neural reflex (involving cranial nerve X/vagus nerve) results in a usually self-limited systemic hypotension with the characteristics of relative or severe bradycardia and/or peripheral vasodilatation (Benditt, 2024). The immediate management should focus on minimizing the duration of loss of consciousness and reducing the risk of injury. This should include the following: (1) assist the patient to the chair or stretcher, (2) lay the patient supine with legs elevated if possible to	Correct identification of the vagus nerve, etiology of vasovagal syncope, immediate nursing response, and post-op education ideas. This is a thorough response, especially in regards to the education - thanks for being specific about all the potential interventions, nice job! The only	9.5/ 10

	enhance venous return to the heart also restoring adequate cerebral perfusion, (3) assess vital signs, (4) call for additional assistance, and (5) attempt to arouse the patient without attempting to immediately raise the patient (Benditt, 2024). Patient education, including the mother, should include trigger avoidance, symptom recognition, intervention (counterpressure maneuvers and assuming the supine position), volume support (increasing fluid intake, liberalizing salt intake, and compression stockings/binders), risk counseling, and driving restrictions (Benditt, 2024). References: Benditt, D. (2024). Reflex syncope in adults and adolescents: Clinical presentation and diagnostic evaluation. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/reflex-syncope-in-adults-and-adolescents-clinical-presentation-and-diagnostic-evaluation Benditt, D. (2024). Syncope in adults: Management and prognosis. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/syncope-in-adults-management-and-prognosis Feedback: I could vividly picture the clinical scenario which was well-described. Also, the immediate intervention question was very practical and could be readily applied on the floor. This quiz question allowed me to remember patient education considerations which is very important.	improvement I could mention is ensuring that reassurance is provided to the patient and his mother - that the episode is temporary and not a sign of a larger issue. Syncope of this variety can be startling and scary for some people and they might need a bit of support, especially if the patient doesn't immediately rouse and respond to the interventions. Education could also include this patient's specific signs and symptoms. Many patients prone to vasovagal syncope know that it's coming and anticipate - it would be helpful for the nurse to explore this with the patient so they can make the connection between their signs and the potential for fainting.	
7	A complete blood count, electrolytes, glucose, coagulation parameters, blood alcohol level, and urine toxicology should be checked. Interventions	descriptive answer, like how you also incorporate interventions along with labs. appreciate the feedback.	9/ 10

	to reverse coagulopathy should begin immediately. Computed tomography is the preferred imaging modality in the acute phase of head trauma. This should be performed immediately with moderate as well as severe TBI. Certain lesions will indicate potentially lifesaving neurosurgical interventions. A noncontrast CT scan will identify skull fractures, intracranial hematomas, and cerebral edema. Follow-up CT scans should be performed if there are any signs of clinical deterioration (Rajajee, 2024). References: Rajajee, V. (2024). Management of acute moderate and severe traumatic brain injury. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/management-of-acute-moderate-and-severe-traumatic-brain-injury Feedback: This question allowed me to read more about neurologic diagnostic exams which I would not regularly do.		
8	Ramsay Hunt Syndrome typically includes the triad of ipsilateral facial paralysis, ear pain, and vesicles in the auditory canal or on the auricle. Other manifestations may include ipsilateral taste perception and tongue lesions, hearing abnormalities (decreased hearing, tinnitus, hyperacusis), lacrimation, and vertigo (Albrecht & Levin, 2025). Pertinent history should include vaccination to varicella, previous episodes of chicken pox or shingles, and presence of other comorbidities, specifically chronic health conditions. We know that the patient has diabetes which may have triggered the onset of their condition. References: Albrecht, M. A. & Levin, M. J. (2025). Epidemiology, clinical manifestations, and diagnosis of herpes zoster. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/epidemiology-clinical-manifestations-and-diagnosis-of-herpes-zoster	Nice job recognizing the syndrome – I was looking for Bell's Palsy but a few of you diagnosed it further with Ramsay Hunt Syndrome! I am deducting points because I was looking for mention of CN VII and how one would rule out a stroke: involvement of the forehead and gradual onset. I returned 0.5 because you added other assessment findings which not many others did.	8.5/10

	Feedback: This question had me second-guessing my answer, but was a great mental exercise!		
9	Trigeminal neuralgia should be considered in the differential diagnosis of any case involving unilateral facial pain. A thorough neurologic examination is necessary, including the assessment of all 12 cranial nerves, with particular emphasis on the fifth cranial nerve. The examiner should assess light touch and pinprick sensations in all three branches of the trigeminal nerve bilaterally. Typically, providers test the forehead for V1, the cheek for V2, and the jaw for V3, but it is important to examine various areas within each branch using both light touch and pinprick. The patient's eyes should be closed, and they should be able to distinguish between sharp and dull sensations. Motor testing should evaluate the pterygoid and masseter muscles. Pterygoid strength is assessed by having the patient open their mouth, noting any deviation of the chin toward the side of weakness. The masseter muscle can be tested by palpating the muscle anterior to the ear and superior to the mandible while the patient clenches their teeth (Larsen, et al., 2011). When assessing first-division trigeminal sensation, the examiner should test the corneal reflex. This is done by having the patient look upward and away while the provider lightly touches the cornea with a wisp of cotton or a drop of water. A normal response should include a blink and the patient's awareness of corneal irritation (Larsen, et al., 2011). References: Larsen, A., Piepgras, D., Chyatte, D., & Rizzolo, D. (2011). Trigeminal neuralgia: Diagnosis and medical and surgical management. <i>JAAPA</i>, 24(7), 20–25. https://www.doi.org/10.1097/01720610-201107000-00005	Great job at identifying the correct cranial nerve (V) in concern with trigeminal neuralgia. Thorough job at discussing the assessments that you as the nurse would perform on the patient when concerned with this condition and how it relates to the pathophysiology. Excellent job overall!	10 / 10

	Feedback: This quiz question allowed me to focus on a particular cranial nerve and familiarize myself with it.		
10	References: Feedback:		/ 10
11	References: Feedback:		/ 10
12			/ 10

	References: Feedback:		
13	Trigeminal neuralgia is a neuropathic disorder characterized by excruciating episodic, electrical, shock-like pain along one or more branches of cranial nerve V (trigeminal nerve). This disorder is often triggered by sensory stimuli such as washing the face or chewing and can severely impact a patient's quality of life. According to a study conducted by Wu, et al. (2015), patients with trigeminal neuralgia (TN) were more likely to develop depressive, anxiety, and sleep disorders. The authors' analysis also showed that hypertension, diabetes mellitus, dyslipidemia and chronic pulmonary disease were more prevalent in patients with TN than in patients without TN. In another study conducted by Bauer, et al. (2024), depression and perceived stress were also found to be prevalent in patients with idiopathic TN. In treatment of TN, the trigeminocardiac reflex (TCR) is a brainstem reflex often triggered during percutaneous balloon compression (PBC). It is marked by significant hemodynamic disturbances, including bradycardia, arrhythmias, and potentially cardiac arrest (Zhang, et al., 2023). References: Bauer, M., Krigers, A., Schoen, V., Thomé, C., & Freyschlag, C. F. (2024). Clinical depression and anxiety are relieved by microvascular decompression in patients with trigeminal neuralgia-A prospective patient-reported outcome study. <i>Journal of Clinical Medicine</i>, 13(8), 2329. https://doi.org/10.3390/jcm13082329	I appreciate the feedback. I read about this condition in books but I have not had any patients with this condition yet. you answered correctly. The pain feels like an electrical shock, like pain, sometimes it stays for a day and other times, it takes two to three days to subsidize it. Thank you for the information on trigeminocardiac reflex and the references. The aim of the questions was to get educated on TN and symptoms related to cardiac and mental health which you have answered appropriately.	10/ 10

	Wu, T. H., Hu, L. Y., Lu, T., Chen, P. M., Chen, H. J., Shen, C., Wen., C. H. (2015). Risk of psychiatric disorders following trigeminal neuralgia: A nationwide population-based retrospective cohort study. <i>The Journal of Headache and Pain</i>, 16(1), 4. https://doi.org/10.1186/s10194-015-0548-y Zhang, H., Zhang, M., Guo, H., Liu, M., He, J., & Li, J. (2023). Risk factors associated with trigeminocardiac reflex in patients with trigeminal neuralgia during percutaneous balloon compression: A retrospective cohort study. <i>Clinical Neurology and Neurosurgery</i>, 231, 107834–107834. https://doi.org/10.1016/j.clineuro.2023.107834 Feedback: I did an interesting dive into a couple of studies regarding this question which was helpful to see the current evidence on the topic.		
14	References: Feedback:		/ 10
15	Patient history should include a description of symptoms, their onset, and their rate of change. Most cases of serotonin syndrome present within 24 hours, and most within six hours, of a change in dose or drug initiation. On physical examination, typical vital sign abnormalities include tachycardia and hypertension, with hyperthermia and dramatic swings in pulse rate and blood pressure seen in severe cases. The following findings may also be	Great job! This answer describes all of the key points associated with the onset/cause of serotonin syndrome, the signs and symptoms, and provides a thorough explanation of the kind of	10/ 10

	seen: agitation, ocular clonus, dilated pupils, tremor, akathisia, deep tendon hyperreflexia, inducible or spontaneous muscle clonus, muscle rigidity, bilateral Babinski signs, dry mucus membranes, flushed skin, diaphoresis, and increased bowel sounds (Boyer, 2024). Patient education should include possible symptoms indicative of serotonin syndrome such as feeling of anxiety, restlessness, or confusion, sweating, muscle spasms, very fast back-and-forth eye movements, shaking or trembling, fever, fast heartbeat, vomiting, and diarrhea. Patients should also be informed of severe symptoms which include high fever, sudden changes in blood pressure or heart rate, and passing out. Patients should also be told to contact their doctor right away if they develop these symptoms. References: Boyer, E. W. (2024). Serotonin syndrome (serotonin toxicity). <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/serotonin-syndrome-serotonin-toxicity Feedback: The visual aid is great and this quiz question allowed me to read more about the pharmacology of medication for mental health conditions.	patient education that should be provided on serotonin syndrome. Overall, your answer is thorough, concise, and describes serotonin syndrome well.	
16	References:		/ 10

	Feedback:		
17	References: Feedback:		/ 10
18	References: Feedback:		/ 10
19	CN IX (glossopharyngeal) and CN X (vagus) are responsible for swallowing function and movement of the soft palate. This is tested by eliciting a gag reflex. CN VIII (vestibulocochlear) can be tested in cooperative school-age children by speech discrimination. This can be done by softly whispering a number approximately one foot from the ear. The Rinne and Weber tests	Great work identifying which nerves may be involved and some physical assessments to evaluate the function of those nerves.	9.5/10

20	can be used as well. Horizontal nystagmus may indicate vestibular system dysfunction. To test the trigeminal nerve, ask the patient to smile, frown, wrinkle their forehead, and close their eyes tightly. Also, ask the patient to open and close their mouth, and to move their jaw side to side. References: Kotagal, S. & Morse, A. M. (2022). Detailed neurologic assessment of infants and children. <i>UpToDate</i>. Retrieved April 8, 2025, from https://www.uptodate.com/contents/detailed-neurologic-assessment-of-infants-and-children Feedback: This quiz question allowed me to use critical thinking by giving symptoms and trying to figure out which cranial nerve was affected.	Other nerves that could be involved are those that work together to control eye movements (nystagmus): Oculomotor (III) Trochlear (IV) and Abducens (VI). These could be assessed by having Ben follow an object through the 6 fields of vision and assessing pupil reactivity to light. I appreciate that you called out that nystagmus can be a sign of vestibular system dysfunction. Another assessment you could consider to evaluate that involvement is the Romberg Test: heels together, eyes open, arms by their side (note swaying). Then ask them to close their eyes. Observe for a full minute. Normal patients may sway a little more with eyes closed, while vestibular patients will sway a lot more. Ataxic patients may fall. <u>Extra info:</u> Ben is showing symptoms of a condition called Posterior Fossa Syndrome, which is common after brain tumor resection, especially when the tumor is near the brain stem. It is related to swelling or damage to the cranial nerves and may be reversible depending on the extent of the damage. These symptoms are often accompanied by sudden and intense mood swings.	/ 10
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