

**INFECTIONS OF CNS**

**CNS SYSTEM  
(MCQS&WRITTEN )  
PREVIOUS EXAMS**



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**2020**

MCQs on CNS

Previous exams :

1. Which of the following is TRUE about *Neisseria gonorrhoea*?

- They are Gram negative anaerobic cocci.
- b. They ferment glucose and maltose.
- c. They are oxidase positive,
- d. They arranged in long chains.

2. Thayer martin medium is the media of choice for isolation of:

- a. *Escherichia coli*.
- b. *Neisseria*.
- c. *Bacillus*.
- d. *Vibrio*.

3. Which of the following is TRUE about *Neisseria meningitidis*?

- a. Transmitted by ingestion.
- b. Eight serotypes have been identified.
- c. Human are the only reservoirs.
- d. Isolated from urine of some patients.

4. All the following statements are TRUE for *Neisseria meningitidis* EXCEPT:

- a. Carrier sample is nasopharyngeal swab.
- b. Best case sample is CSF
- c. There are 80 capsular serotypes.
- d. Rifampicin is used as a chemoprophylactic agent

**5.Regarding to commensal Neisseria all the following are TRUE EXCEPT?**

- a. Grow on ordinary media.
- b. Yielding pigmented colonies.
- c. Capsulated
- d. Grow at atmospheric CO<sub>2</sub>.

**6.Which one of the following is NOT an important characteristic of either Neisseria gonorrhoeae or Neisseria meningitidis?**

- a. Polysaccharide capsule.
- b. IgA protease.
- c. M protein.
- d. Pili.

**7.Each of the following statements concerning Neisseriae is CORRECT EXCEPT:**

- a. They are gram-negative diplococci.
- b. They produce IgA protease as a virulence factor.
- c. They are oxidase-positive.
- d. They grow best under anaerobic conditions.

**8.Each of the following statements concerning Neisseria meningitidis is correct EXCEPT:**

- a. It is an oxidase-positive, Gram-negative diplococcus.
- b. It contains endotoxin in its cell wall.
- c. It produces an exotoxin that stimulates adenylate cyclase.
- d. It has a polysaccharide capsule that is antiphagocytic.

**9. Assuming the agent isolated from the patient's spinal fluid, which produces a positive oxidase test when grown on solid media, the MOST likely cause is:**

- a. Poliomyelitis.
- b. Tuberculous meningitis.
- c. Influenzal meningitis.
- d. Meningococcal meningitis.

**10. A premature neonate diagnosed as a case of meningitis. The isolated pathogen is a Gram positive, facultative anaerobe, grows on ordinary media and can multiply at low temperature, so the expected pathogen is:**

- a. Streptococcus agalactiae.
- b. Escherichia coli.
- c. Listeria monocytogenes.
- d. Neisseria meningitidis.

**11. The most frequent source of infection with Listeria monocytogenes is through which of the following EXCEPT:**

- a. Milk product
- b. Sea food
- c. Meat
- d. Vegetables

**12. The tetanospasmin secreted from Clostridium tetani is characterized by the following EXCEPT:**

- a. Neurotoxin.
- b. Heat labile.
- c. Rapidly converting to toxoid.
- d. Oxygen stable.

**13-The most common cause of gas gangrene.**

- a. *C. perfringens*
- b. *C. septicum*
- c. *C. tetani*
- d. *C. botulinum*

**14.Tetanus toxins diffuse to terminals of inhibitory cells in spinal cord and block which of the following**

- a- release of c AMP
- b- release of neuraminidase
- c-activation of acetylcholine esterase
- d- release of inhibitory neurotransmitters glycine
- e- release of enterotoxins

**15.Which one of the following is not characteristic for *C.botulinum*?**

- a- Pathogenesis depends on neurotoxin production
- b- It is anaerobic Gram +ve bacilli
- c.It produces lecithinase enzyme which causes opaque white precipitate around the colonies
- d.It causes food poisoning and rarely wound infection

**16.MMR vaccine is giving protection against measles, mumps and:**

- a- Reoviruses
- b- Respiratory syncytial virus
- c- Retroviruses
- d- Rotavirus
- e.Rubeila virus

**17. Presence of Koplik's spots is considered as a diagnostic marker of which of the following viral infections?**

- a- Erythema infectiosum caused by parovirus B19
- b- Measles
- c. Mumps
- d. Roseola infantum caused by HHV-6
- e- Varicella zoster

**18. Latency is characteristic phenomenon after infection of which of the following virus**

- a- corona virus
- b- Herpesviruses
- c- Paramyxovirus
- d- Polioviruses
- e- Rhinoviruses

**19. The following statements are true for measles virus except**

- a- The virus is a member of paramyxoviridae family
- b- Bronchopneumonia and encephalitis are complications of infection
- c- It is a ss RNA virus with a helical nucleocapsid
- d- No available vaccine to prevent infection

**20. Which one of the following clinical presentation NOT associated with poliovirus infection?**

- a- Abortive infection.
- b- Gastroenteritis
- c- Aseptic meningitis.
- d- Paralysis.

**21. Human diploid cell vaccine of rabies (HDC) is characterized by:**

- a- Live attenuated vaccine.
- b- Given in 21 injections.
- c- The vaccine is produced by growing the virus in embryonated egg.
- d- The vaccine is safe and given in 6 injection.

**22. Which statement is false about herpes simplex virus**

- a- It is ssDNA non enveloped virus
- b- Latency may occur in trigeminal or sacral ganglia
- c. Acyclovir is the drug of choice and has no effect on latency and recurrence
- d- There are two distinct types (type 1 and 2)

**23. Which statement is correct for diagnosis of virus infection?**

- a- Detection of virus particle by PCR.
- b- Detection of virus inclusion bodies by light microscope and virus genome by PCR
- c- IgG detection which indicates recent infection.
- d- Elevated specific virus IgM which indicates past infection.

**24. Measles is one of the most infectious diseases is characterized by :**

- a. Transmission by fecal-oral route
- b. Characterized by Koplik's spots and rash starts on the head.
- c. vaccine is available.
- d. interferon is used for its treatment.
- e. Not Complicated by bronchopneumonia

**25. Rhizopus stolonifer belongs to which class?**

- a. Acrasiomycetes
- b. Zygomycetes
- c. Ascomycetes
- d. Deuteromycetes

**ANSWERS**

1.C	6.C	11.B	16.E	21.D
2.B	7.D	12.D	17.B	22.A
3.C	8.C	13A	18.B	23.B
4.C	9.D	14.D	19.D	24.B
5.C	10.C	15.C	20.B	25.B

**mowafyat**

الاسئلة دي للناس ذات الفكر العالي وطبعا كلكوا الناس دي عشان تعرفوا ان كليتنا والميكرو مش حفظ وهنزل ايجاباتهم ع قناة التليجرام وهسيب رقمي ابعثوا عليه هضيفكوا ع القناة للي محتاج يتناقش فيها

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**1.Spores of *Colistridium botulinum* may commonly found in?**

- a. Animal fur
- b. Fresh fruit
- c. Human hair
- d. Naso pharyngeal mucosa
- e. Soil

**2.A 45-year-old female executive goes to a cosmetic surgeon with the complaint of frown lines on her forehead which she feels are negatively affecting her appearance. Rather than undergoing surgery, she opts to try injection of Botox. What is the mechanism of action of this toxin?**

- a. It blocks release of acetylcholine
- b. It inhibits glycine and GABA.
- c. It is a lecithinase.
- d. It is a superantigen.
- e. It ribosylates eukaryotic elongation factor-2.
- f. It ribosylates Gs

**3.A 19-year-old man was brought to the emergency department by his dorm mate with a petechial rash, headache, nuchal rigidity, and vomiting. Which of the following describes the most likely causal agent?**

- a. Gram-negative coccus, capsule, ferments maltose
- b. Gram-negative coccus, ferments glucose only
- c. Gram-negative coccobacillus, capsular serotype b
- d. Gram-positive coccus, alpha hemolytic, optochin sensitive
- e. Gram-positive rods, growth at 4 C (39.2 F)

**4. What is the typical means of transmission of a toxin that blocks the release of inhibitory transmitters GABA and glycine?**

- a. Eating home-canned foods
- b. Fecal-oral, travel to foreign country
- c. Infant given honey during the first year of life
- d. Puncture wound
- e. Respiratory, with incomplete vaccination history

**5. An infant presents to the emergency department due to difficulty breathing, constipation, and anorexia. Upon examination, the physician notes flaccid paralysis. A toxin screen of the stool identified the agent. What is the mechanism of action of the toxin?**

- a. ADP ribosylation of eukaryotic elongation factor 2 (eEF-2)
- b. ADP ribosylation of Gi
- c. ADP ribosylation of GTP-binding protein
- d. Blocks release of acetylcholine
- e. Blocks release of inhibitory transmitters GABA and glycine

**6. A 7-day-old infant presents to the emergency department with a fever, poor feeding, and a bulging fontanelle. During her physical examination, she begins to convulse. A Gram stain of the CSF reveals gram-positive rods. Which of the following organisms is the most likely causal agent?**

- a. *Escherichia coli*
- b. *Haemophilus influenzae*
- c. *Listeria monocytogenes*
- d. *Neisseria meningitidis*
- e. *Streptococcus agalactiae*

**7. An 8-year-old boy from India was brought to the emergency department while visiting the U.S. because of a flaccid paralysis in his lower extremities. His mother explains that the child had a flu-like illness a couple of weeks earlier. How was the agent in the case likely acquired?**

- a. Fecal-oral
- b. Mosquito
- c. Respiratory
- d. Sexual
- e. Tick

**8. A 5-year-old girl presents with a fever and a generalized macular rash that is most dense on the scalp and trunk of the body. Several waves of lesions appear, one after another, and evolve rapidly into vesicles and then pustules over several days. The most likely disease and causal agent is**

- a. Exanthem subitum due to cytomegalovirus
- b. Chickenpox due to the varicella-zoster virus
- c. Whitlow infection due to herpes simplex virus type 1
- d. Herpetic gingivostomatitis due to the varicella-zoster virus
- e. Infectious mononucleosis due to the Epstein-Barr virus

**9. Two days after eating a meal that included home-canned green beans, three people developed various degrees of visual problems, including double vision and difficulties focusing. Describe the Gram reaction of the organism most likely to be isolated from the leftover beans and lab findings which would be used in its identification.**

- a. A gram-positive coccus which is catalase-positive and grows in a high salt environment
- b. A gram-positive aerobic bacillus which sporulates
- c. A gram-positive coccus which is catalase-negative and optochin-resistant
- d. A gram-positive bacillus grown on a low oxidation reduction medium
- e. A gram-negative bacillus capable of reducing nitrates to nitrites

## Written Questions

1. **Niessleria MeninGitis** ( Mode of transmission – Most virulence factor – The main items of Lab Diagnosis of a case – prevention & prophylaxis ) (2018)
2. **Cl. Tetani** ( Pathogenesis – Diagnosis) (2015)
3. **Neisseria meningitis** ( Source of infection – MOI – Lab diagnosis – Chemoprophylaxis ) (2013)
4. **CMV** ( MOI – Define Latency & reactivation – 3 method of Lab diagnosis ) (2018)
5. **VZV** ( primary infection – reactivation) (2017)
6. **Primary infection of Cytomegalovirus** (2016)
7. **Compare () Chicken pox & zoster**  
(Causative virus – incidence – C/P – Varicella zoster vaccine & efficacy – Passive immunization & efficacy ) (2015)
8. **Rhabdoviruses**, (Pathogenesis – 3 types of human vaccine) (2014)
9. **EBV** ( clinical significance – Lab diagnosis ) (2013)
10. **Human Herpes virus** ( 3 families – Give examples in each one) (2015(2))
11. **Mucromycosis ( Thoracic )**  
( 2 Risk factors – Identify other clinical forms – Describe Microscopic appearance of this when Put KOH) (2018)