


<p>Tanta University Faculty of Medicine Anesthesia, SCC, Pain medicine Dep.</p> <p>Date 7/5 / 2022</p>	<p>Exam: MD 3rd Paper (Pain Medicine) No of Questions : 1- Long Answer Question (LAQ) 4 - Short Answer Questions (SAQs) 15 - Single Best Answer Questions (SBAQs) 15 - Multiple Choice Questions (MCQs) Time Allowed: 2 Hours Marks: 60 marks/LAQ 20 mark/SAQ 3 mark/SBAQ 1 mark/MCQ Total → (200)</p>	
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Long Answer Questions (LAQs)

- 1- Discuss complex regional pain syndrome. (60 marks)

Short Answer Questions (SAQs)

- 1- Discuss chronic cervical facet pain. (20 marks)
2- Discuss use of radiofrequency in chronic pain. (20 marks)
3- Discuss sympathectomy in cancer pain. (20 marks)
4- Discuss pain modulation around dorsal horn cells. (20 marks)

Single Best Answer Questions (SBAQs)

1. A 45-year-old patient, who has a long history of opioid addiction, has had a below-knee amputation following a road traffic accident. On the third postoperative day, despite initial satisfactory pain control, he starts to suffer from severe increasing generalized stump pain. Increasing morphine dosage has been ineffective. Which one of the following analgesic regimes is the most likely to be effective in relieving his pain?

- A. Epidural morphine infusion.
- B. Intrathecal morphine infusion.
- C. Intravenous morphine infusion.
- D. Intravenous ketamine infusion.
- E. Intravenous Lidocaine infusion.

2. A 52-year-old patient who had an amputation of the right upper limb at the mid-humeral level 3 years ago. He is presenting to the pain clinic complaining of pain in the right wrist, which is associated with burning and a spasmodic sensation. What would be the most appropriate initial therapy for him?

- A. Morphine sulfate.
- B. Gabapentin.
- C. Cognitive-behavioral therapy.
- D. Image-guided physiotherapy.
- E. Stellate ganglion block.

3. A 44-year-old female presents with generalized body pain. She feels lethargic and also complains of depression. She has generalized muscle tenderness all over her body. She is known to have irritable bowel syndrome. What is the most likely diagnosis?

- A. Muscular dystrophy.
- B. Rheumatoid arthritis.
- C. Polymyalgia rheumatica.
- D. Fibromyalgia.
- E. Chronic fatigue syndrome.

4. A 63-year-old male who is a chronic smoker complains of constant leg pain. Clinical examination has revealed ischemic ulcers in both his legs. He has been assessed by a vascular surgeon and has been referred to the pain clinic for the management of his pain. Which of the below is likely to be the most effective treatment for his pain?

- A. Regular morphine.
- B. Lumbar epidural steroids.
- C. Nerve root block.
- D. Superior hypogastric plexus block.
- E. Chemical lumbar sympathectomy.

5. A 70-year-old man is undergoing a deep cervical plexus block using 12ml of 0.5% levobupivacaine. Five minutes after completing the injection, the patient complains of difficulty in breathing, he denies circumoral numbness or tingling. Soon he becomes unconscious and apneic requiring intubation and ventilation. The blood pressure decreases from 140/80 to 80/40 mm Hg and responds to intravenous fluids and ephedrine. The ECG

shows sinus rhythm with a heart rate of 60 bpm. About 90 minutes later the patient wakes up and is extubated. The neurological examination is completely normal and his blood pressure is stable. Which of the following complications is the most likely cause of the respiratory arrest in his setting?

- A. Local anesthetic toxicity.
- B. Epidural block.
- C. Subarachnoid block.
- D. Intravascular injection.
- E. Right phrenic nerve palsy.

6. A 72-year-old woman presents with unilateral burning pain in the T7 dermatome on the right side. She complains of severe pain associated with a tingling and itching sensation. She is unable to tolerate light touch in the area. Her medical history is remarkable for hypertension, COAD, and end-stage renal failure. She recently had a course of steroids. What would be the most appropriate initial treatment for her pain?

- A. Gabapentin.
- B. Amitriptyline.
- C. Morphine sulfate.
- D. Lidocaine 5% plasters.
- E. Capsaicin 0.025% cream.

7. A 52-year-old man suffers from radicular pain in the L4 nerve distribution of his right leg. His medical history is remarkable for a discectomy at the L4/L5 level 2 years ago. His pain interferes with his work as a security officer. He has tried neuropathic and opioid medications, TENS, a lumbar epidural, and physiotherapy without satisfactory pain relief. TENS relieves his pain for a short duration only. His family and employer are sympathetic and supportive. What would be the next most suitable therapy for his pain?

- A. Cognitive behavioral therapy.
- B. Physiotherapy
- C. Spinal cord stimulation.
- D. Intrathecal drug delivery using opioids.

E. Acupuncture.

8. A 62-year-old man is known to have ischemic heart disease and has a permanent pacemaker. He is on various cardiac medications and had a CABG 2 years ago. He continues to suffer from chest pain and has been diagnosed with refractory angina. He also suffers from obstructive sleep apnea and uses CPAP during the night. Which of the following would be the most appropriate treatment to manage his chest pain?

A. TENS therapy.

B. Stellate ganglion block.

C. Regular NSAIDs.

D. Regular diamorphine.

E. Fentanyl patch.

9. A 27-year-old man presents to the pain clinic with an inability to lift his right arm. His medical history is remarkable for open reduction and internal fixation of a fracture of the neck of the right humerus three weeks ago. On examination, there is reduced sensation over the lower part of the right deltoid region. Which of the following nerves is the most likely to be injured and causing his symptoms?

A. The axillary nerve.

B. The median nerve.

C. The suprascapular nerve.

D. The musculocutaneous nerve.

E. The radial nerve.

10. A 62-year-old female with widespread metastatic carcinoma of the rectum is on morphine sulfate (MST) 200mg daily, gabapentin 600mg twice daily, and paracetamol 1g/8h. More recently her pain control has been poor, needing an increase in the dose of MST. Although this has relieved her pain it has caused unacceptable side effects. Her life expectancy is about 2 years. Which of the following would be most likely to improve her pain control with minimal risk of side effects?

A. Epidural infusion of opioids via a tunneled catheter.

- B. Intrathecal opioid delivery via an implanted pump.
- C. Transdermal fentanyl patches.
- D. Sublingual buprenorphine 0.4mg added to the existing analgesia.
- E. Increasing the frequency of administration of MST.

11. A 61-year-old man presents to the pain clinic with pain in the right groin for the last 6 months. The pain started after hernia repair surgery. Reversible causes of this pain have been ruled out. Which of the following would be the most appropriate scale for assessment of his pain?

- A. Brief Pain Inventory.
- B. Visual Analogue Scale.
- C. Numeric Rating Scale.
- D. McGill Pain Questionnaire.
- E. Neuropathic Pain Scale.

12. A 35-year-old female presents with weakness of the legs. An urgent MRI shows a disc prolapse at the L5/S1 vertebral level causing compression of the cauda equina. On neurological examination, which of the following clinical signs is likely to be present?

- A. Peri-anal numbness.
- B. Extensor plantar response.
- C. Brisk ankle jerks.
- D. Weakness of hip flexion.
- E. Reduced knee jerks.

13. A 16-year-old girl with sickle cell disease presents with severe chest and abdominal pain. Her medical history is remarkable for intermittent exacerbations every few weeks during the last 2 years. During the acute exacerbations, her pain is almost always severe and is affecting her sleep and ability to attend school. Which one of the following would be the most suitable analgesic to manage her pain exacerbation?

- A. Psychological counselling.

- B. Regular paracetamol.
- C. Regular morphine.
- D. Regular diclofenac sodium.
- E. Tunneled thoracic epidural catheter.

14. A 58-year-old patient is complaining of severe back pain and increasing numbness in both legs on the 4th postoperative day of abdominal exploration. He has had an epidural in situ since his operation; the epidural infusion was switched off 8 hours ago as his blood pressure had been low. For the last few hours, his temperature has been 38°C. Which of the following intervention should be the first priority in his setting?

- A. Give an epidural top-up using 0.5% bupivacaine.
- B. Remove the epidural catheter and start morphine PCA.
- C. Arrange for an MRI scan of the spine.
- D. Arrange for surgical review as soon as possible.
- E. Start multimodal analgesia and broad-spectrum antibiotics.

15. A 48-year-old man presents to the pain clinic with severe right-sided sciatica which he has suffered from for the last 9 months. He is a taxi driver, he has already tried treatment with analgesics, physiotherapy, and acupuncture. His MRI scan shows moderate disc prolapse at the L5-S1 level. He does not wish to undergo any surgical intervention. Which of the following is the most suitable treatment in his setting?

- A. Stronger opioid medication.
- B. Epidural steroid injection.
- C. Facet joint injection.
- D. Traction therapy to the lumbar spine.
- E. Six weeks' bed rest.

Multiple Choice Questions (MCQs)

1. Which of the following pathways is involved in the transmission of pain?
 - A. Corticobulbar tract
 - B. Corticospinal tract
 - C. Lateral spinothalamic tract
 - D. Dorsal columns

2. In which of the following conditions is chronic post-surgical pain most commonly seen?
 - A. Cholecystectomy.
 - B. Mastectomy.
 - C. Amputation of a limb.
 - D. Thoracotomy.

3. Which of the following is not consistent with the diagnosis of fibromyalgia?
 - A. Minor pain
 - B. Pain lasts more than 3 months
 - C. No other pathologies can explain or contribute to the pain
 - D. Frequent association with a psychiatric diagnosis

4. Which of the following is the correct order for lipid solubility?
 - A. Morphine > fentanyl > sufentanil > alfentanil.
 - B. Morphine > alfentanil > sufentanil > fentanyl.
 - C. Sufentanil > alfentanil > fentanyl > morphine.
 - D. Sufentanil > fentanyl > alfentanil > morphine

5. Which of the following is consistent with the definition of allodynia?
 - A. Pain secondary to a primary lesion in the nervous system.

- B. An increased response to a painful stimulus.
- C. Pain provoked by a non-painful stimulus.
- D. A decreased response to a painful stimulus

6. Which of the following is the best block for pain secondary to cancer pancreas?

- A. Celiac plexus block.
- B. Intrathecal neurolysis.
- C. Hypogastric plexus block.
- D. Stellate ganglion block.

7. Which of the following side effects is not consistent with intrathecal morphine?

- A. Hypotension.
- B. Nausea and vomiting.
- C. Pruritus.
- D. Respiratory depression.

8. Considering tramadol, which of the following is true?

- A. Mainly involves mu receptors and effects are fully antagonized by naloxone.
- B. Has central analgesic properties
- C. Has maximum bioavailability via the rectal route.
- D. Has more side effects with the extended-release formulation.

9. Regarding anti-inflammatory drugs, all of the following are true except?

- A. NSAID intake can cause acute renal failure in patients with >10% perioperative blood loss.
- B. NSAID use can cause congestive heart failure in the elderly population.
- C. Long-term use of proton pump inhibitors used in conjunction with NSAIDs can increase the risk of osteoporotic fractures.

D. Paracetamol has good anti-inflammatory action.

10. Regarding diabetic neuropathy, which of the following is true?

- A. Most commonly hands are involved.
- B. Most common is chronic sensory-motor peripheral neuropathy.
- C. Large nerve fibers are involved.
- D. Loss of proprioception and vibration is an early finding.

11. Regarding joint pain, which of the following is true?

- A. Most common presentation is persistent pain at rest.
- B. Pain is elicited by stimulation of normal cartilage and synovial tissue.
- C. Is mainly mediated by A β fibers.
- D. Cartilage is richly innervated with A δ fibers.

12. All of the following drugs are useful in the treatment of postoperative pain in a cancer patient who was on slow-release morphine preoperatively, except?

- A. Pethidine
- B. Butorphanol
- C. Morphine
- D. Fentanyl

13. Which of the following is an example of a central pain state?

- A. Bone fracture pain
- B. Gallbladder pain.
- C. Postoperative incision pain
- D. Phantom limb pain

14. Which of the followings is the most common location of the herniated disc of the lumbar spine region?

- A. Lumbar 1-2
- B. Lumbar 4-5
- C. Lumbar 3-4
- D. Lumbar 2-3

15. Regarding pruritus associated with opioids, all of the following are true, except?

- A. Is relieved by ondansetron.
- B. Is necessary histamine-related.
- C. Is μ - receptor-mediated.
- D Is reversible with naloxone.

GOOD LUCK.