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Intraspinal (Neuraxial) Analgesia
Best Practice vertebral column
Waterloo Wellington HPC Protocol Excellence

Community Self-Learning Package

Intraspinal (Neuraxial) Analgesia Community Nurses Competency Test

WATERLOO WELLINGTON HPC EDUCATION COMMITTEE;
INTRASPINAL EDUCATION TASK FORCE

Intraspinal (Neuraxial) Analgesia for Community Nurses Competency Test

- 1) Name the two major classifications of pain.
 - i. _____
 - ii. _____
- 2) Neuropathic pain is usually responsive to opioids only.
 - a. True
 - b. False
- 3) Name the third step in the transmission of pain:
 - a. Nociception
 - b. Modulation
 - c. Perception
 - d. Reception
- 4) The difference(s) between the epidural space and the subarachnoid or intrathecal space is:
 - a. CSF is found in the intrathecal space
 - b. epidural space contains no CSF, but is full of fat, blood vessels, lymphatics & nerves
 - c. analgesics given in the intrathecal space are only 1/10th the dose needed for the epidural space
 - d. all the above
 - e. a, b
- 5) The spinal cord and brain are surrounded by 3 layers of meninges: pia mater, arachnoid mater and dura mater.
 - a. True
 - b. False
- 6) The vertebral column is made up of 33 vertebrae these include:
 - a. 9 cervical, 10 thoracic, 5 lumbar, 5 sacral, 3-4 coccygeal
 - b. 7 cervical, 12 thoracic, 4 lumbar, 4 sacral, 5-6 coccygeal
 - c. 7 cervical, 12 thoracic, 5 lumbar, 5 sacral, 3-4 coccygeal
 - d. 5 cervical, 14 thoracic, 5 lumbar, 5 sacral, 3-4 coccygeal
- 7) All of the following are true regarding assessment of sensory block except:
 - a. sensory block should be assessed when a patient is receiving an opioid infusions via the epidural route
 - b. sensory block can be tested using an ice cube
 - c. diminished sensation in a particular skin surface area or dermatome gives an indication of sensory loss
 - d. spinal nerves innervate specific skin surface areas called dermatomes

- 8) Sensory fibers of spinal nerves are only able to detect pain, stretch and pressure but not touch or sensations?
- True
 - False
- 9) The benefits of intrathecal analgesia include:
- pain relief without losing motor function
 - ability to manage pain with a smaller amount of opioid resulting in less side effects
 - pain relief using greater amounts of opioids resulting in prolonged and effective pain relief
 - the ability to perform this method of anaesthesia in the most unstable patients
 - a and b
- 10) Intrathecal opioids:
- include all opioids which are preservative free
 - bind with exogenous opioids at the opiate receptors at the dorsal horn and analgesia occurs
 - block pain transmission as the painful stimuli is entering the nerve root
 - cause pruritis and should be avoided unless ordered by the physician
- 11) Intrathecal local anaesthetics:
- bind with exogenous opioids at the opiate receptors at the dorsal horn and analgesia occurs
 - block nerve conduction in small nerve fibres faster and at lower concentrations than in large fibers
 - cannot be used in combination with intrathecal opioids
 - are stored in the fridge
- 12) Morphine is a(n):
- hydrophilic opioid which can be injected into the subarachnoid space as long as it is preservative free
 - opioid that should not be confused with hydromorphone
 - lipophilic opioid which can be injected into the subarachnoid space as long as it is preservative free
 - safe drug that can be given into the space above the dura whether it is preservative free or not
 - a and b
- 13) Morphine administered into the intrathecal space:
- has a slower onset of action
 - has a duration which lasts only 4 hours
 - has a duration which lasts up to 24hours
 - a and c
 - a and b

- 14) After receiving intrathecal opioids, patients should be monitored:
- for side effects such as motor and sensory blockade and low oxygen saturations
 - for side effects such as pruritis, urinary retention, nausea and vomiting, increased sedation
 - using the PQRST pain assessment
 - b and c
- 15) Using both local anaesthetic and opioid in the intrathecal space provides better pain relief at lower doses than using an opioid alone.
- true
 - false
- 16) Patients who receive intrathecal morphine and intrathecal local anaesthetic should be monitored for:
- motor function using the Bromage motor scale
 - sedation using the Pasero opioid induced sedation scale to assess for early signs of respiratory depression
 - changes in blood pressure and heart rate
 - effective pain control using the PQRST pain assessment
 - all of the above
- 17) When a patient is receiving Intraspinal Analgesia in the community, the pump delivering the Intraspinal / Neuraxial Analgesia should:
- Be set for boluses q1h
 - Be clearly labeled, as well as the tubing as the Intraspinal Analgesia pump/ tubing.
 - not be initiated unless the nurse and another healthcare provider or family member independently double check the solution and pump settings with the written prescription
 - All of the above.
- 18) When assessing pain in a patient receiving Intraspinal Analgesia , there needs to be daily documentation of:
- The severity of the pain using a reliable pain assessment scale
 - The quality of the pain
 - Side effects
 - the number of demands requested and boluses doses taken of opioids in past 24 hours
 - All of the above
- 19) Your patient's sedation score yesterday was 2. This means your patient was:
- occasionally drowsy
 - Somnolent, minimal or no response to stimulus
 - frequently drowsy, drifts off to sleep during conversation
 - awake and alert

- 20) Today, when you visit your patient, he tells you he has been having wild dreams. His sedation score is 3. You do a full pain assessment, and document on your agency flow sheet. Given this assessment, you should also:
- Open the Symptom Response Kit, and administer Haldol for mild delirium.
 - Nothing: continue to monitor as you suspect he might be starting to show side effects.
 - Call the physician to receive orders.
 - None of the above.
 - All of the above.
- 21) Your patient has been on Haldol 1 mg po bid for 4 weeks now, and is not experiencing any psychotomimetic side effects. At this time, you should:
- Continue the Haldol as ordered. as part of the Intraspinal / Neuraxial Anesthesia / opioid protocol
 - Recommend decreasing the dose to the patient and physician
 - Hold Haldol for a few days to assess if this medication is still needed, or if the patient has developed tolerance to the side effects
 - Recommend increasing the dose of Haldol, due to expected tolerance to this low dose.
- 22) You receive a call from your patient's wife this evening. He has been receiving Intraspinal Analgesia for 9 weeks and has been quite stable. She states that he is "not quite himself". She says that says he has a headache and fever. In response to this, you instruct the wife to:
- stay with the patient and you will make a visit shortly.
 - give him acetaminophen 650mg po and put him to bed for the night and you will assess him in the morning
 - call the anesthesiologist as he will have to prescribe an antibiotic
 - not to worry that this is normal in a patient with intraspinal catheter and is not of any concern
- 23) While assessing your patient who is receiving Intraspinal Analgesia he describes tingling in his legs. He reports back pain and rates 5/10 on the numeric rating scale (NRS). He states it becomes worse when he receives a PCA bolus and he describes this pain as aching. You assess that he has no sensory loss to cold. He has no motor block. He states, "I guess I can expect this, I have cancer". As his nurse you:
- continue your assessment and take full set of vital signs including TPR & BP
 - assess his gait as he walks
 - further question him about the timing of his pain and effect the PCA bolus had on his back pain
 - you call the physician to report the findings of your assessment
 - all of the above
 - a, c & d

24) Local Anesthetic Toxicity

- a. can result from vascular uptake or injection of infusion of local anesthetic directly into the systemic circulation
- b. may occur as a result of inadvertent intravascular administration or overdose
- c. always occurs in older adults receiving Intraspinal Analgesia because most seniors have a decreased ability to clear local anesthetics
- d. a & c
- e. a & b

25) _____ is used to cleanse the subcutaneous port used to deliver Intraspinal Analgesia.

- a. Alcohol
- b. Chlorhexidine
- c. Hydrogen peroxide
- d. Betadine

Pass = 20/25

Note: Please contact HPC Consultation Services to receive the answer key.

Email: hpcinfo@hospicewaterloo.ca

Phone: (519)743-4114

Intraspinal (Neuraxial) Analgesia for Community Nurses Competency Test Answer Sheet

1) _____ and _____

2) a b c d e f

3) a b c d e f

4) a b c d e f

5) a b c d e f

6) a b c d e f

7) a b c d e f

8) a b c d e f

9) a b c d e f

10) a b c d e f

11) a b c d e f

12) a b c d e f

13) a b c d e f

14) a b c d e f

15) a b c d e f

16) a b c d e f

17) a b c d e f

18) a b c d e f

19) a b c d e f

20) a b c d e f

21) a b c d e f

22) a b c d e f

23) a b c d e f

24) a b c d e f

25) a b c d e f