

Assessment Tools

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Geriatric Anesthesiology Pre test 2009

Instructions:

Select the best answer.

Question 1 (5 points)

Cardiovascular changes in the older adult include all of the following EXCEPT:

- 20-30% decrease in Blood volume
- Decrease in the tonic influence of the parasympathetic system
- Decrease in the response of the Beta receptors
- Increases in the SVR

Question 2 (5 points)

The apolipoprotein E e4 allele has been linked in elderly patients to the development of which ONE of the following?

- Coronary Artery Disease
- COPD
- Alzheimer's disease
- Rheumatoid arthritis

Question 3 (5 points)

Aging related changes of the respiratory system include all of the following EXCEPT:

- Decreased response to hypoxemia
- Decreased response to hypercarbia
- Enhanced hypoxic vasoconstriction during single lung ventilation
- Progressive decrease of the PaO₂ with age

Question 4 (5 points)

Expected pulmonary function test results in an older adult include which ONE of the following?

- Increased vital capacity

- Decreased closing volumes/closing capacity
 - Decreased alveolar gas exchange
 - Increased FEV1
-

Question 5 (5 points)

All the following statements about the management of acute pain in the elderly are false EXCEPT:

- Meperidine should be avoided as first line of treatment in the older adult
 - Pain decreases with age
 - Elderly patients can not tolerate opioids
 - Elderly patients are more susceptible to addiction
-

Question 6 (5 points)

Which one of the following statements about prevention of peri-operative delirium in the older patient is TRUE?

- Avoid ambulatory surgery
 - Keep Foley until discharge to avoid urinary retention
 - Avoid scopolamine patches for PONV prophylaxis
 - MAC has a lesser incidence of delirium than GA
-

Question 7 (5 points)

Changes in the central nervous system that are related to age include the following EXCEPT:

- Attrition of Cerebral/Cerebellar neurons
 - Decreased number of serotonin receptor in the cortex
 - Elevated levels of Acetylcholine and Acetylcholine receptors which are responsible for Delirium
 - Decreased levels of Dopamine in the Substantia nigra
-

Question 8 (5 points)

Which of the following statements regarding postoperative delirium is TRUE?

- MAC is a better option if possible
 - Regional anesthesia clearly prevents postoperative delirium
 - Agitated elderly patients in the PACU should be given Benadryl
 - It is a medical emergency
-

Question 9 (5 points)

All of the following statements regarding renal function in the older patient are true EXCEPT:

- Acute renal failure significantly increases perioperative mortality
 - The GFR of an 80 year old is about 125ml/min
 - ATN is the most common cause of renal failure in the elderly
 - Renal blood flow is decreased in the older adult
-

Question 10 (5 points)

Which of the following statement regarding postoperative cognitive dysfunction (POCD) is TRUE?

- Regional anesthesia is a superior choice in preventing this entity
 - POCD is similar to delirium
 - Its causes are likely multifactorial
 - Isoflurane is better than Desflurane if inhaled anesthetics are used
-

Question 11 (5 points)

Which one of the following statements about hypothermia is TRUE?

- Shivering response is marked in older adults
 - Vasoconstriction is preserved and serves as a major mechanism during hypothermia in the elderly patient
 - Drug clearance is unaffected in the hypothermic patient
 - Myocardial ischemia might result from hypothermia
-

Question 12 (5 points)

The oldest old include individuals in which of the following age ranges?

- >65
 - >75
 - >85
 - >95
-

Question 13 (5 points)

Pharmacokinetics in the older adult differ from younger individuals due to all of the following EXCEPT:

- Lower levels of albumin increasing the fraction of free drug
- Decreases in hepatic and renal function impact drug clearance
- Higher plasma concentrations are achieved with same doses due to lower blood volume
- Changes in fat tissue content have no impact on duration of drug effects

Question 14 (5 points)

Intraoperative risk factors for the development of delirium include which ONE of the following?

- Inhalation anesthetics
 - Total intravenous anesthesia
 - Regional or neuroaxial techniques
 - Significant blood loss
-

Question 15 (5 points)

Changes in the thoracic cage, respiratory muscles and lung parenchyma lead to the following EXCEPT:

- Decreased chest compliance
 - Decreased respiratory reserve
 - Susceptibility to become "tired" during respiratory distress
 - Better tolerance of the supine position
-

Question 16 (5 points)

Of the following which is the MOST significant predictor of mortality after surgery and anesthesia at one year?

- Volatile anesthetics
 - Presence of comorbidities
 - Cumulative deep anesthesia (BIS<45, per hour)
 - Chronic Beta Blockers
-

Question 17 (5 points)

CNS changes related to aging include all of the following EXCEPT:

- Decrease in the number of neurons
 - Decreased MAC
 - Increased CMRO₂
 - Decreased CBF
-

Question 18 (5 points)

Cardiovascular changes related to age include the following EXCEPT:

- LVH
 - Diastolic dysfunction
 - Significant cardiac output decreases if atrial contraction is impaired
 - Decreased SVR
-

Question 19 (5 points)

Which of the following statements regarding the management of chronic pain in the elderly is TRUE?

- NSAID's should be used with extreme caution
 - Acetaminophen is no recommended due to decreased hepatic function
 - Opioids are contraindicated
 - Fentanyl patches are an excellent alternative as drug absorption is well controlled
-

Question 20 (5 points)

In the elderly neuroaxial anesthesia is characterized by all of the following EXCEPT:

- Lower blood levels of local anesthetics
 - Slower metabolism of local anesthetics
 - Longer duration of block
 - May get higher block (especially epidural)
-

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