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## SAJAA CPD ANSWER FORM - September/October 2024

## PLEASE SUBMIT ONLINE BEFORE 31 MARCH 2025

### Please answer the following questions:

# The incidence of perioperative critical events in paediatric patients at a Johannesburg academic hospital

- 1. The following critical event was most frequently observed in the study:
- a. Respiratory events
- b. Cardiovascular events
- c. Hypoglycaemia
- 2. The patient factor most strongly associated with the occurrence of respiratory critical events is:
- a. Lower weight
- b. Younger age
- c. ASA II classification
- 3. In this study, the most common method of airway management associated with critical respiratory events was:
- a. Facemask
- b. Supraglottic device
- c. Endotracheal tube (ETT)

## 4. The 2022 preoperative fasting guidelines by the European Society of Anaesthesiology and Intensive Care include:

- a. Clear fluid in healthy individuals up to two hours before elective procedures
- b. Breastmilk is recommended for up to three hours
- c. Formula milk and a light meal are allowed up to six hours before anaesthesia

# Comparison between intra-arterial and two non-invasive blood pressure measuring systems: a cross-sectional analytic study employing Bland-Altman and error grid analyses

## 5. What is the primary purpose of a Bland-Altman analysis?

- a. To determine the correlation coefficient between two measurement methods
- b. To assess the agreement between two different measurement methods
- c. To calculate the mean difference between two sets of measurements

## 6. In a Bland-Altman plot, what do the horizontal lines typically represent?

- a. The individual measurements from each method
- b. The mean difference and the limits of agreement
- c. The correlation between the two measurement methods

# 7. Which of the following statements is true regarding the interpretation of a Bland-Altman plot?

- a. A narrow range between the limits of agreement indicates poor agreement between methods.
- Points outside the limits of agreement suggest systematic bias or variability between the methods.
- The plot should always show a linear relationship for the methods to be considered comparable.

#### 8. What is the primary purpose of error grid analysis in the context of arterial blood pressure measurement methods?

- a. To establish a correlation coefficient between two measurement methods
- To illustrate the clinical relevance of measurement differences between a test method and a reference method
- c. To determine the cost-effectiveness of different blood pressure monitoring technologies

# 9. What is the recommended percentage of data points that should lie within Zone A in error grid analysis?

- a. At least 80%
- b. At least 90%
- c. At least 95%

## 10. What does the study suggest about the utility of measuring natural frequencies and damping ratios in clinical practice to ensure the accuracy of invasive pressure measurements?

- a. They are essential for accurate blood pressure monitoring
- b. They are unhelpful, mirroring other researchers' findings
- c. They should be measured routinely in all patients

# Disease spectrum and short-term outcomes of obstetric patients with cardiac disease admitted to an obstetric critical care unit in South Africa

## 11. Regarding the spectrum of cardiac diseases in pregnancy:

- a. Congenital heart disease predominates in high-income countries
- Rheumatic heart disease tends to predominate in low- to middle-income countries only
- c. Congenital heart disease predominates in upper middle-income countries

#### 12. Regarding the CARPREG II risk-scoring tool:

- a. The CARPREG II risk tool is more valuable in high-income countries
- b. The CARPREG II study was conducted in a low-income country
- More studies are needed in resource-limited environments using the CARPREG II risk tool to assess its generalisability

## 13. Regarding the spectrum of cardiac diseases in this study:

- a. Congenital heart disease was the main pathology
- b. Mitral valve disease predominated, comprising 38.4% of the cohort
- c. Cardiomyopathy was the smallest group

#### 14. Regarding length of OCCU stay:

- a. The length of OCCU stay was a median of four days between the cardiac groups
- b. The length of stay was no longer in patients with OCCU interventions
- c. Presenting with pulmonary oedema was the only significant baseline factor associated with length of stay

#### 15. Regarding late bookers

- a. Late pregnancy assessment is not part of the CARPREG II risk score
- b. Patients without a prior cardiac intervention booked at a later gestation
- c. Late bookers had a significantly longer length of stay

# Anaesthetists' knowledge and practice of environmentally sustainable anaesthesia in an academic department of anaesthesiology

# anaesthesia in an academic department of anaesthesiology 16. Which components of anaesthesia contribute heavily to climate change?

- a. Use of inhalation anaesthetic gases
- b. Use of intravenous anaesthetic agents
- c. All of the above

## 17. The Global Warming Potential 100 (GWP<sub>100</sub>) is known as

- a. The heat absorbed by any GHG in the atmosphere, as a multiple of the heat that the same mass of CO<sub>2</sub> (carbon dioxide) would absorb
- b. The amount of radiation absorbed by a gas
- c. The amount of radiation that a gas traps which causes global warming

# 18. The researchers found that participants knew that inhalation anaesthetic gases are detrimental to the environment, however...

- a. The practices of how inhalation anaesthetic gases are used, were not favourable
- b. Desflurane is commonly used in state hospitals
- c. Years of experience influenced this practice

## 19. According to ASA guidelines, during inhalation induction of anaesthesia, the following needs to be instituted during intubation, to practice in a more environmentally sustainable manner:

- a. Switch off both the fresh gas flow and vapouriser
- b. Switch off the fresh gas flow, but not the vapouriser
- c. Maintain high fresh gas flow and switch on the vapouriser

# 20. Reusing anaesthetic equipment in South Africa is likely influenced by the following factor:

- a. Knowledge of anaesthetic equipment
- b. Personal preference
- c. Financial constraints

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