



The Hong Kong College of Anaesthesiologists

Final Fellowship Examinations

Paper II – Critical Appraisal

11 March 2019 (Monday)

11:30 – 12:10 hours

Article

The Ability of Bispectral-Guided Management Compared to Routine Monitoring for Reflecting Awareness Rate in Patients Undergoing Abdominal Surgery. Iran Red Crescent Med J. 2014 September;16(9):e13584

Instructions

- a. There are EIGHT multiple choice questions in this paper. ANSWER ALL QUESTIONS. All questions carry equal marks.
- b. You should mark only ONE answer for each question in the box provided next to the question. If you mark more than one answer, you will receive NO MARK for that question. No marks will be deducted for incorrect answers.

1. Which of the following(s) is (are) accurate description of the trial design?

- I. Parallel group trial
- II. Equivalence trial
- III. Open labeled trial
- IV. Permuted trial

- A. I only
- B. I and II only
- C. I and III only
- D. II and IV only

2. Although there was no explicit statement on the outcome of the trial, which of the following would be the intended primary outcome?

- A. Changes of vital signs.
- B. Rate of awareness during anesthesia.
- C. Changes of bispectral values.
- D. Number of interviews conducted.

3. The trial planned to recruit 392 patients – 196 patients per group (page 2, left column, middle of 2nd paragraph). However, the final recruitment was 333 patients. Nevertheless, the trial reported that the post hoc power of study was 0.91. The power remained high despite fewer patients because:

- A. rates of awareness in both groups were high.
- B. difference in the rate of awareness between groups was large.
- C. the α value was 0.91.
- D. the age of the patients were low.

4. A validated questionnaire for detecting awareness during surgery will require demonstration of:

- I. ability to elicit the content that patient remembered during anesthesia.
- II. time to complete questionnaire within 1 min.
- III. split-half reliability.
- IV. internal consistency.

- A. I only
- B. I and II only
- C. I and III only
- D. III and IV only

5. Although not specifically stated in the paper, which of the following(s) is (are) important components in a questionnaire designed for detection of awareness?

- I. What is the last event that the patient remembered before going to sleep?
- II. Can the patient remember anything in between going to sleep and waking up?
- III. Can the patient remember dreams between going to sleep and waking up?
- IV. What is the first thing the patient remember during recovery?

- A. II only
- B. I and II only
- C. II and III only
- D. I, II and IV only

6. In Panel A of Figure 1 (page 3), what is the best statistical test to assess whether there was a difference in SBP (mmHg) between BIS and non-BIS groups during surgery?

- A. T-test.
- B. Analysis of variance test.
- C. F-Test.
- D. Random effect model test.

7. Several other trials have also tested whether BIS monitoring prevented awareness during surgery. The best way to display or illustrate the overall effectiveness of BIS monitoring in all trials is a:

- A. Forrest plot.
- B. Wood plot.
- C. Scattered plot.
- D. Regression plot.

8. Apart from bispectral index monitoring, other techniques (monitors) that may be useful for detecting awareness during surgery include:

- I. Oesophageal Doppler.
- II. Isolated forearm.
- III. Cerebral oximetry.
- IV. Auditory evoked potential.

- A. II only
- B. I and II only
- C. II and III only
- D. II and IV only

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