

Candidate No.:



The Hong Kong College of Anaesthesiologists
Final Fellowship Examination
Paper II – SAQ: Question 1 (critical appraisal)
13th March 2017 (Monday)
11:00 – 11:40 hours

Instructions:

- Write your examination number on the top of each page. Use ink or ball-point pen only.
- Answer **ALL** questions in this paper in 10 minutes.

Based on the article: *Hai F, Porhomayon J, Vermont L, Frydrych L, Jaoude P, El-Solh AA: Postoperative complications in patients with obstructive sleep apnea: a meta-analysis. J Clin Anesth 2014; 26: 591-600*

1. Describe the study design. (1 mark)

2. What is the purpose of the study? (1 mark)

3. In page 593, section 2.4 Statistical analysis, 1st paragraph, the authors mentioned “heterogeneity across studies”. List the factors that may influence heterogeneity. (3 marks)

4. In Page 593, section 3.3 “Pooled analysis”, the term “publication bias” was mentioned.
 (a) What cause(s) publication bias? (1 mark)

- (b) How would publication bias affect the results? (1 mark)

- (c) With regard to the funnel plot (Fig 3, top of page 598), if we are going to add an extra study of 50 subjects having an odds ratio of 20 for respiratory failure to the figure. Indicate (with a small circle) in the diagram below, where you might expect such a study may locate? (1 mark)

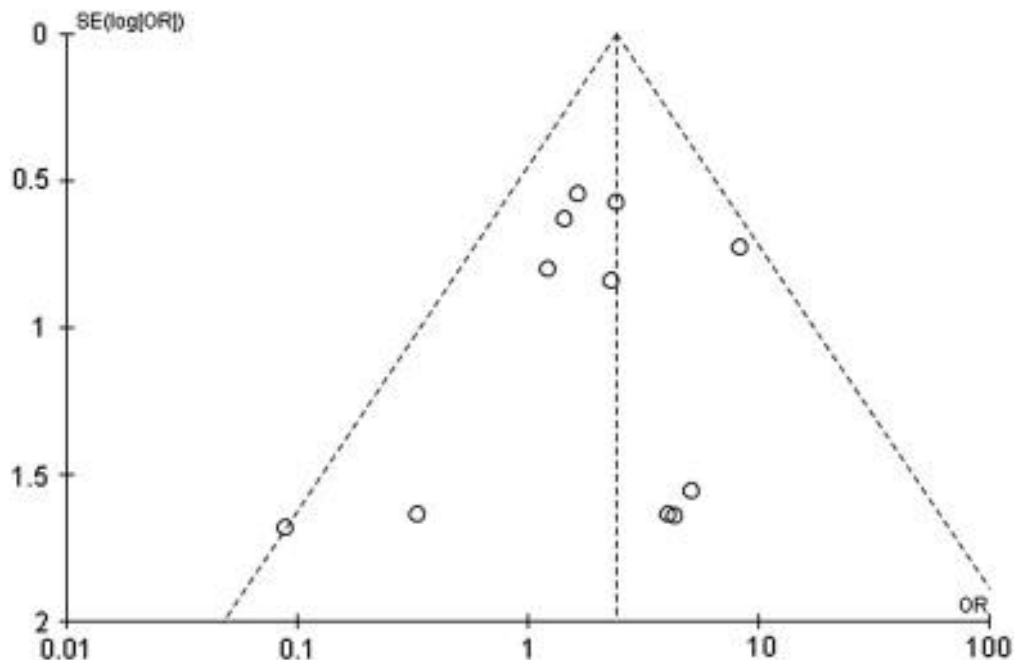


Fig. 3. Funnel plot for the primary outcome of respiratory failure in surgical patients with obstructive sleep apnea (OSA). SE = standard error, OR = odds ratio

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5. Is there a causal relationship between obstructive sleep apnea and adverse cardiac and respiratory events after surgery? Briefly explain your answer. (2 marks)

END OF QUESTION 1