The short answer questions (SAQ) remain the best discriminator between the candidates who perform well in the written examination and those who do not. Insufficient knowledge or depth of knowledge is a key factor in poor performance. However, SAQs are designed to test not only the candidates’ knowledge, but also their ability to apply this knowledge to higher order thinking that is used in everyday obstetric and gynaecological practice. Examples of higher cognitive thinking include: the ability to apply evidence or guidelines to unusual clinical situations, or to be able to evaluate the benefits and disadvantages of different treatments.

A consistent major error in exam technique is failure to answer the question asked. This is evidenced either by candidates failing to use the context of the case scenario provided or by not correctly interpreting the “direction” words about how the question is to be answered. Many candidates include irrelevant information in addition to answering the question, which wastes the time available to complete the examination. Tables and bullet points are efficient methods to minimise volume of writing.

In addition it is critical that candidates look at the number of marks allocated to each part of the question and to limit their answers appropriately. In general there is 1 mark allocated for each fact requested. If half marks are to be allocated then the question will indicate this, e.g. list 8 factors (4 marks). Model answers are available at: https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Training%20and%20Assessment/Examinations/SAQ/FRANZCOG-Written-Examination-SAQ-guide.pdf

When preparing for the FRANZCOG examination, candidates must have meticulous knowledge of the contents of the RANZCOG Curriculum as it forms the basis for both the breadth and the depth of knowledge that is tested. It is available on the RANZCOG website at https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Training%20and%20Assessment/Specialist%20Training/Curriculum%20and%20Handbook/RANZCOG-Curriculum.pdf. To assist with learning, candidates are advised to know the content of the RANZCOG Statements. These are regularly written and revised and contain evidence-based care recommended for practice in Australia and New Zealand.

In addition, evidence-based guidelines published by other learned bodies both in Australia and New Zealand, e.g. Society of Obstetric Medicine in Australia and New Zealand (SOMANZ) and internationally e.g. RCOG Green-top Guidelines and NICE Guidelines, are very informative and often form the basis for clinical practice in Australia and New Zealand. Globally, WHO/UNICEF Statements strongly influence core maternal and reproductive health issues. Recommended reading resources also include recent editions of O&G Review and ANZJOg. All the Landmark Clinical Trials in the e-CLIMATE module are able to be examined and form part of the curriculum. Candidates fail this examination because of deficiencies in their knowledge base, answering with information which does not address the specific question asked, and by failing to relate their answer to the clinical scenario provided.

Associate Professor Janet Vaughan & Associate Professor Boon Hoe Lim
FRANZCOG SAQ Coordinators
Question 1 – Neural tube defects (NTD)

a. Discuss the strategies of two (2) public health measures and how they have contributed to the successful primary prevention of neural tube defects (NTDs) in low risk women in Australia and New Zealand. (4 marks)

You are seeing a 22 year old multiparous woman (G1 P1) for preconception counselling. Her first child was unexpectedly born with spina bifida and died at 6 weeks of age from complications of this condition. She has had genetic counselling and been told this was an isolated abnormality and she has no genetic risk for another affected baby.

b. Discuss your management plan to reduce her recurrence risk of a neural tube defect (NTD), including other possible important medical risk factors. (7 marks)

c. Describe 4 (four) ultrasound features that enable the diagnosis of spina bifida in the second trimester. (4 marks)

Comment
Routine prevention of neural tube defects with at least 400mcg folic acid taken preconception and folate supplementation of bread are successful public heath interventions (see Pre-pregnancy Counselling C-Obs 3 (a) 2015). Similarly, candidates were expected to be able to advise a high risk woman of her management preconception and during a subsequent pregnancy to reduce her risk of recurrence. As one of the most common fetal structural abnormalities, candidates should be aware of characteristic ultrasound features. Those below MAPS had poor overall knowledge of the topic or failed to answer the question.

Question 2 – Thyroid disease in pregnancy

a. In both Australia and New Zealand iodine supplementation with 150 to 220µg iodine is recommended during pregnancy.

   Justify this recommendation. Include relevant physiological changes in pregnancy in your answer. (5 marks)

b. What are four (4) effects of overt hypothyroidism on each of the following?
   i) Maternal obstetric outcome (2 marks)
   ii) Fetal development (2 marks)

c. A woman with no relevant past medical history has a TSH level of 0.05 (Normal range is 0.1-2.5mU/L) on first trimester booking bloods. She has no clinical signs or symptoms of overt hyperthyroidism.

   i) Describe the physiological changes that occur in thyroid metabolism during normal pregnancy which may explain this result. (2 marks)
   ii) How would you manage this TSH result? (4 marks)

Comment
An understanding of the physiological factors affecting iodine metabolism in pregnancy and the effect of severe iodine deficiency and hypothyroidism on both maternal and fetal health was expected. These issues and the measuring and interpretation of TSH during pregnancy are discussed in detail in two RANZCOG Statements: Vitamin and mineral supplementation in pregnancy C-Obs 25 2015 and Testing for hypothyroidism during pregnancy with TSH C-Obs 46 2015. Generally this was a well-answered question.
Question 3 – Herpes infection in pregnancy and recommendations for delivery

A 19 year old primigravida sees you for the first time in the antenatal clinic at 35 weeks gestation. Her pregnancy has been progressing well to date. She is not aware of a past history of herpes simplex virus (HSV) infection and all antenatal screening tests have been normal. She reports a painful blister in her left vulva of 2 days duration.

On examination, she is generally well and you find a 3mm tender blister on her left vulva that is highly suspicious of a HSV lesion.

a. Provide a discussion of her risk of vertical transmission of HSV at birth. (2 marks)
b. i) Discuss your management plan to confirm whether this is a first or recurrent episode of HSV infection. (3 marks)
   ii) Justify this management. (1 mark)
   iii) Explain the information that enables you to confirm whether your patient has a first or recurrent episode of HSV infection. (3 marks)

She has a confirmed recurrent HSV infection. She comes in at 38 weeks having ruptured her membranes for 2 hours and in active labour.

c. How would you manage her in this situation? (6 marks)

Comment

This question was aimed at testing the candidate’s knowledge of the effects of herpes simplex virus (HSV) infection in pregnancy, especially with vertical transmission of HSV at birth. This patient presented at 35 weeks with signs and symptoms suggestive of primary HSV infection. However, in up to 15% of cases where a woman presents with a first episode of clinical HSV infection, it will actually be a recurrent infection which has a much lower vertical transmission rate. This was the justification for the management in section b. i) but this was not well understood by all the candidates. The approach to the management of HSV in pregnancy has been outlined in the Australian Infectious Diseases Guideline, The RCOG Green top guideline and the O&G Magazine. In general, most candidates knew how to manage recurrent HSV in late pregnancy and in labour but their approach to discriminating between primary and recurrent HSV was inconsistent.

Question 4 – Use of oxytocinon and delay in the first stage of labour

A 30 year old primigravid woman in spontaneous labour with ruptured membranes is diagnosed with confirmed delay in the first stage of labour at 6cm dilatation. She has no medical conditions and has had an uncomplicated pregnancy with an appropriately grown baby. Her labour has been progressing normally until this time and she has no other contraindications to augmenting her labour with oxytocin.

a. In this situation, detail your:
   i) Oxytocin dosage and management regimen. (5 marks)
   ii) Recommendations for the subsequent management of her labour. (5 marks)

One hour after commencing the oxytocin infusion you are called to review her because of cardiotocograph (CTG) changes suggestive of fetal compromise.

b. i) What is the current RANZCOG terminology to describe the most likely cause of this fetal compromise? (1 mark)
   ii) Describe the two (2) CTG features that would indicate this as the cause. (2 marks)

c. Outline the Cochrane evidence regarding the outcome of pregnancy from augmenting her labour in this setting. (2 marks)
Comment

This question tested the candidates’ understanding and knowledge of managing two aspects of augmentation: 1. oxytocinon regime and 2. labour in a woman on oxytocinon. Those below MAPS often confused the two, thus answered inappropriately. The most likely cause of CTG abnormality in this scenario is uterine hyperstimulation which is discussed in RANZCOG Intrapartum Fetal Surveillance Clinical Guideline 2014. Cochrane evidence for common clinical interventions should be known and is available online.

Question 5 – Female Genital Mutilation (FGM)

A 33 year old primigravida presents to your antenatal clinic at 24 weeks gestation. She migrated from Somalia 2 years ago. Her antenatal course has been uncomplicated to date. All of her screening tests have been negative except that she had a urinary tract infection that was treated. She explains that she underwent female genital mutilation (FGM) when she was an infant.

a. On examination, what physical signs would you use to classify that she has FGM Type 3? (Use the WHO FGM Classification) (3 marks)

You establish that the woman underwent a Type 3 FGM as an infant and has had recurrent urinary tract infections.

b. i) Explain to her the antenatal procedure that is indicated to improve her health risks. (4 marks)

   ii) Explain two (2) maternal health risks the procedure may improve. (2 marks)

She declined the procedure during the antenatal period.

c. How would you counsel her regarding delivery? (6 marks)

Comment

Most candidates had a good working knowledge of the WHO FGM Classification. However, there were candidates who were not able to adequately explain to the woman with Type 3 FGM who had recurrent urinary tract infections. It is important to sensitively counsel women with such problems with respect to their health and wellbeing and offering deinfibulation. Candidates were expected to understand the procedure so that they can adequately obtain informed consent. In this case, she declined the procedure during the antenatal period and candidates were therefore expected to know how to approach her problem in labour. Most candidates did not demonstrate good knowledge of management of this problem in labour.

Question 6 – Amniotic fluid embolus, maternal collapse and maternal mortality

A 36 year old G4 P3 presents to the birthing unit in spontaneous labour at 39 weeks gestation. She has no past history of note. Her previous pregnancies were uncomplicated with normal vaginal births. She progresses quickly to a normal delivery of a healthy male infant weighing 3450 grams. The placenta is delivered uneventfully and blood loss estimated at 300mls. Within minutes, she suddenly collapses. You are concerned that she has experienced an amniotic fluid embolus (AFE).

a. From the history provided:

   i) Is there any risk factor that would be associated with amniotic fluid embolism in this patient? Justify your answer. (1 mark)

   ii) What other plausible causes of her sudden collapse would you consider? List three (3) obstetric and three (3) non obstetric causes. (3 marks)

Her BP is 90/45 and initial investigations indicate Hb 114g/L and platelets 60. Her vaginal blood loss is increasing.
b. Explain the association between these findings and the pathophysiology that occurs in AFE.  
(3 marks)
c. Outline the scope of multidisciplinary supportive treatment that may be required for this woman.  
(8 marks)

Comment
Maternal collapse in the postpartum period is not uncommon and may have catastrophic consequences. Registrars managing the Birthing Units are expected to be able to recognise and manage the mother who collapses. Yet, nearly 50% of candidates score below the Minimal Acceptable Pass Score (MAPS)! This is disappointing. Most of those who scored below MAPS did not show an understanding of the pathophysiology of amniotic fluid embolism (AFE) and consequently were not able to systematically outline the management of this problem, which requires a multidisciplinary approach.

Question 7 – Adenomyosis
A 42 year old woman has a history of long standing, very heavy and painful periods. Examination reveals a tender enlarged uterus and a recent ultrasound has shown a globally enlarged uterus. You suspect adenomyosis as the diagnosis.

a. i) Correlate her symptoms with an explanation of the underlying pathology in adenomyosis.  
(2 marks)
ii) Describe the other ultrasound features that are considered important in making a more definitive diagnosis of adenomyosis. (3 marks)
b. Contrast the use of MRI with ultrasound as an imaging modality to diagnose adenomyosis.  
(4 marks)
c. i) Briefly explain two (2) effective surgical treatments available to you to treat her symptoms.  
(2 marks)
ii) Outline an advantage and a disadvantage for each treatment. (4 marks)
Use a table for your answer in part c.

Comment
Common problems answering this question included 1. lack of understanding of the pathology of adenomyosis; 2. poor knowledge of the ultrasound (US) features, such as asymmetry of the uterine wall thickness and thickening of the subendometrial junctional zone and 3. inability to compare US with MRI, e.g. it is more expensive but more accurate and can quantitate the thickening of the subendometrial junctional zone. Below MAPS candidates also consistently demonstrated inadequate knowledge of surgery for this condition.

Question 8 – Complications of laparoscopic surgery and management
a. What is the estimated rate of serious complication at laparoscopic surgery? (1 mark)
b. As most complications occur at the time of primary or secondary port placement:
   i) List two (2) factors known to increase the risk of laparoscopic entry complications. (2 marks)
   ii) For each of the three (3) major complications that can occur at port entry, outline one intraoperative strategy that can be used to reduce its risk (do not use the same strategy twice):
a. Bladder perforation (1 mark)

b. Damage to inferior epigastric artery (1 mark)

c. Bowel perforation (1 mark)

c. Palmer’s point entry is a method of safely obtaining a pneumoperitoneum when the risk of adhesions in the region of the umbilicus is high. Briefly describe the technique of Palmer’s point entry. (5 marks)

d. Electrosurgical injuries are relatively common in laparoscopy. List the main mechanisms or types of electrosurgical injury. (4 marks)

Comment

This question requires a good understanding of the principles of laparoscopic surgery, the risks factors associated with laparoscopic entry complications and the strategies to reduce the risk. The use of alternative routes of port entry i.e. the Palmer’s point requires an understanding of the anatomy of the left upper quadrant of the abdominal wall and precautions to be taken to avoid complications. Candidates were also required to know the complications of electrosurgery. Generally, this question was well answered.

Question 9 – Delayed menarche/primary amenorrhoea

A 17 year old girl comes to see you with primary amenorrhoea. She began developing breasts at 10 years of age, with full breast development by 13 years. She is physically well, with no history of medical, surgical or psychiatric disorders, no eating disorders and no pattern of excessive exercise. She has no pelvic pain.

On examination, she is 172cm tall, 65kg (BMI 22). She has normal well-oestrogenised female external genitalia, scant pubic hair and a normal patent hymen.

A pelvic ultrasound performed by the GP reports an absent uterus without any evidence of haematocolpos.

a. You consider the 2 diagnoses of complete androgen insensitivity syndrome (CAIS) and mullerian agenesis (Mayer-Rokitansky-Kuster-Hauser syndrome (MRKH)) are the most likely causes of her primary amenorrhoea.

i) Discuss how this scenario enables you to make this conclusion and excludes other common causes of primary amenorrhoea. (5 marks)

ii) Justify two (2) tests that will enable you to distinguish between CAIS and MRKH. (2 marks)

b. Explain the pathophysiology that causes the phenotype in CAIS. (3 marks)

c. Outline five (5) particular medical issues that are associated with a diagnosis of CAIS and your management of each issue. Use a 2 column table for your answer. (5 marks)

Comment

Delayed menarche may be caused by endocrinological or embryological aetiologies. This question requires a good knowledge of congenital anomalies of the genital tract and disorders of puberty. In this question, a 17 year old girl presents with primary amenorrhoea. She showed evidence of secondary sexual characteristics and the candidate was required to differentiate between complete androgen insensitivity syndrome (CAIS) and mullerian agenesis (Mayer-Rokitansky-Kuster-Hauser) syndrome. The importance of good history taking and understanding of the pathophysiology of CAIS is required in order to instigate appropriate investigations and management of the problem.
Overall, it was pleasing to note that the majority of candidates were either at or above MAPS for this question.

**Question 10 – Urodynamic tests and their role**

a. Name six (6) specific types of urodynamic tests that may be performed to assess function of the lower urinary tract. Explain what each test measures. (6 marks)

b. Explain when you would undertake urodynamic testing before contemplating surgery in a woman with stress incontinence. (4 marks)

A 65 year old woman of BMI 35 with utero-vaginal prolapse presents with a history of urge incontinence that improved (but still symptomatic) as the prolapse worsened over the years. She also describes the need to manually replace the prolapse to void. She has no co-morbidities, keeps good health and takes no medication. Examination confirms a Stage II Pelvic Organ Prolapse (POP).

c. Describe how you would manage her problem. (5 marks)

**Comment**

This question tests the knowledge of the role of the different tests involved in urodynamics testing. It is important for patients to understand why they undergo the test and for what the purpose of each individual test is. In this section, most candidates demonstrated a good working knowledge. The clinical part of the question involved the management of urge incontinence associated with pelvic organ prolapsed. In general, this section was also well answered, with most candidates scoring at or above MAPS.

**Question 11 – Recurrent miscarriage**

A 38 year old G3 P0 woman presents with a history of three (3) miscarriages at 9, 7 and 8 weeks respectively. She has not had any difficulty falling pregnant.

a. Discuss this woman’s chance of having a further miscarriage based on the information in the scenario. (3 marks)

b. Justify screening this couple for:
   i) Antiphospholipid syndrome (APS). (3 marks)
   ii) Karyotype abnormalities. (3 marks)

c. Describe how the diagnosis of antiphospholipid syndrome would change your management of her next pregnancy beyond routine care. (6 marks)

**Comment**

The RCOG Green-top guideline No 17 *The Investigation and Treatment of couples with Recurrent First-trimester and Second-trimester Miscarriage, 2011* is a useful resource for answering this question. A large percentage of candidates were below MAPS because they provided insufficient or incorrect information together with poor justification in part b. and lack of specific details in response to the clinical scenario in part c. In this scenario, RCTs have shown that daily low dose aspirin (≈100mg) and low molecular weight heparin improve take home baby rates. Screening and monitoring for fetal growth restriction and preeclampsia along with DVT prevention are all relevant.
Question 12 – Borderline ovarian tumour

You see a 37 year old woman in the Gynaecology Outpatient Clinic. Two months ago she developed acute appendicitis on holiday and had an uncomplicated laparoscopic appendicectomy at a rural hospital. An incidental finding of an 8cm left ovarian cyst was made at the time of surgery and a laparoscopic ovarian cystectomy was performed. Her recovery was uneventful and she attends with a letter from the rural hospital that advised her that she had a borderline ovarian tumour (BOT).

a. i) After initial history and examination, outline your immediate management plan with regard to her BOT. (4 marks)

   ii) Justify each of your management points. (4 marks)

Use a table for your answer in part a.

b. What histological findings are associated with an increased risk of recurrence of a borderline ovarian tumour? (2 marks)

The woman has not yet had a family but intends to in the future. Assuming that she has no high-risk histological findings;

c. Evaluate her current management considerations to reduce her long-term health risks but enable her to have a family and her future management considerations. (5 marks)

Comment

Most candidates passed this question. In this scenario, your management includes following up the histopathology to ensure it was correct and surgery to ensure it was appropriate, then monitoring for residual disease or bilaterality with relevant tumour markers and a pelvic ultrasound. In part c. the options include further surgery or not, depending on original report with a view to monitor for recurrence but retain fertility and plan for hysterectomy with BSO once family completed. Discussion on HRT and peritoneal recurrence are also appropriate.

- END OF EXAMINATION -