

## COGU SAQ MODEL QUESTIONS

The following question consists of two sections, with the fifteen marks available for the question distributed through the two sections as indicated. Candidates are reminded that the marks available for each section of the question give a rough indication of the amount of time that they would be expected to allocate to answering the individual sections.

### Model Question 1

A 65 year old woman, not on HRT, is referred for an ultrasound for the investigation of postmenopausal bleeding.

- (a) In point form describe in detail the typical sonographic appearances of:
- i) endometrial carcinoma (5 marks);
  - ii) endometrial polyp (4 marks)
  - iii) endometrial atrophy (2 marks)
- (b) List the risk factors for endometrial carcinoma (4 marks)

#### 1. Model answer

- a) i) Endometrial carcinoma:
- Combined endometrial thickness usually greater or equal to 4.0mm
  - Focal thickening or morphological irregularity
  - Polyp(s)
  - Cystic changes
  - Inability to define the midline echo
  - Haematometra/ Pyometra
  - Loss of normal definition of endometrial-myometrial interface
  - Invasion into myometrium-heterogeneous or echogenic echotexture
  - Echogenic-most are diffusely or partially echogenic
  - Doppler changes-colour Doppler increased vascularity
  - Myometrial distortion

**Marking scheme:** 1 mark for 2-3 points, 2 marks for 4-5 points, 3 marks for 6-7 points, 4 marks for 8-9 points, 5 marks for 10 or more points.

ii) Endometrial polyp:

- Combined endometrial thickness usually greater or equal to 4.0mm
- Inability to define the midline echo
- Rounded echogenic lesion within cavity
- Cystic changes
- Polyp moves separately to endometrium (persistence off)
- May be flat (sessile)
- May be multiple
- Typical colour Doppler appearance is vascular stalk entering from myometrium and running along the polyp

**Marking scheme:** 1 mark for 2-3 points, 2 marks for 4-5 points, 3 marks for 6-7 points, 4 marks for 8 points.

iii) Endometrial atrophy:

- Combined endometrial thickness less than 4.0mm, usually much less
- Endometrium usually seen as one or two very thin echogenic lines
- No focal changes
- No vascularity

**Marking scheme:** 1 mark for 2-3 points, 2 marks for 4 points.

b) Risk factors:

- Obesity
- Hypertension
- Diabetes
- PCOS
- HNPCC gene carriers/ Hereditary non polyposis colorectal cancer
- Unopposed oestrogen therapy
- Tamoxifen
- Nulliparous
- Late menopause
- Early menarche

**Marking scheme:** 1 mark for 3-4 points, 2 marks for 5-6 points, 3 marks for 7- 8 points, 4 marks for 9-10 points.



**Model Question 2**  
over page

The following question consists of five sections, with the fifteen marks available for the question distributed through the two sections as indicated. Candidates are reminded that the marks available for each section of the question give a rough indication of the amount of time that they would be expected to allocate to answering the individual sections.

## Model question 2

In the Cochrane Database of Systematic Reviews umbilical artery Doppler assessment is associated with a 29% overall reduction in perinatal mortality (OR 0.71, 95% CI 0.5, 1.01)

- (a) (i) What study type and analysis was used to demonstrate these results? **(2 marks)**  
(ii) List at least three statistically significant associations of this use of Doppler ultrasound from this review. **(3 marks)**
- (b) Interpret the significance of the statistical result reported in the Cochrane Database **(2 marks)**
- (c) Are there any other tests of fetal growth or well being which have been shown to reduce perinatal mortality in the Cochrane Database of Systematic Reviews? If so please name one. **(1 mark)**
- (d) In practise how do you use umbilical artery Doppler clinically? **(3 marks)**
- (e) List at least four clinical situations in general in which there may be a false positive result. **(4 marks)**

## Model answer

- a) (i) Meta-analysis of prospective randomised controlled trials  
**(2 marks; 1 mark for meta-analysis; 1 mark for randomised control trials)**
- (ii) Any of following are acceptable:
- Reduction of antepartum admission in high risk pregnancy
  - Reduction of induction of labour in high risk pregnancy
  - Reduction of elective delivery in high risk pregnancy
  - Reduction in emergency C-section for fetal distress in high risk pregnancy
- (3 marks; 1 mark for each of 3 points)**
- b) Confidence interval crosses 1  
Therefore result does not reach statistical significance  
**(2 marks; 1 mark for each of the above 2 points)**
- c) No other tests have been shown on meta-analysis to reduce PNM **(1 mark)**
- d)
- Used in high risk pregnancy (eg IUGR)
  - AEDF/REDF are the endpoint measured
  - Abnormal result triggers increased surveillance of fetus
  - Use to reduce perinatal mortality
  - Not the optimal test to time delivery if used alone
  - Use to time corticosteroid administration

**1 mark for 2 of the following points; 2 marks for 3-4; 3 marks for 5-6 points**

- e) Any of following are acceptable:
- Fetal breathing
  - Fetal movement
  - Sampling too close to the fetus
  - Aneuploidy (particularly trisomy 21)
  - Low risk pregnancy
  - Early gestation (before 20 weeks)

**1 mark for each up to 4 points**