

## Sample OBGYN Questions & Critiques

The sample NCCPA items and item critiques are provided to help PAs better understand how exam questions are developed and should be answered for NCCPA's OBGYN CAQ Exam.

### **Question #1**

A 41-year-old woman, gravida 6, para 5, at 30 weeks' gestation comes to the clinic for a detailed ultrasonography. She currently feels well and has no concerns. Obstetric history includes one spontaneous vaginal delivery and four subsequent low-transverse cesarean deliveries. Heart rate is 62/min and blood pressure is 125/77 mmHg. Physical examination shows no abnormalities for gestational age. Ultrasonography shows a placental abnormality that increases the patient's risk of excessive bleeding after delivery. Hysterectomy at the time of delivery is recommended. Which of the following placental abnormalities is most likely to have been detected in this patient?

- A. Low-lying placenta
- B. Placenta accreta**
- C. Placenta previa
- D. Placental infarction
- E. Subchorionic hematoma

Content Area: Antenatal Complications (14%)

### **Critique**

*This question tests the examinee's ability to recognize placenta accreta in a patient on the basis of the patient's history, risk factors, and findings on ultrasonography. The correct answer is option (B), placenta accreta, because this condition increases the risk of postpartum hemorrhage by abnormally adhering the placenta to the myometrium due to the risk factor of four previous cesarean deliveries. Although numerous conditions can cause placental bleeding, placenta accreta is the only option that is treated with hysterectomy.*

*Option (A), low-lying placenta and option (C), placenta previa, are incorrect because, although these conditions are placental abnormalities that can increase the risk of bleeding, the risk is not so severe that hysterectomy is indicated. Option (D), placental infarction, is incorrect because, although this condition would be concerning at 30 weeks' gestation, it is unlikely to increase the risk of bleeding. Option (E), subchorionic hematoma, is incorrect because this condition is seen in the first trimester and this patient is in the third trimester.*

**Question #2**

A 52-year-old woman comes to the clinic for her annual physical examination. She says since she entered menopause, she has vaginal dryness during intercourse, hot flashes, and difficulty remaining asleep. Last menstrual period was two years ago. Heart rate is 82/min, and blood pressure is 128/66 mmHg. On pelvic examination, vaginal walls are smooth and dry. The patient asks about menopause hormone therapy. Review of her medical history for which of the following comorbidities is most appropriate before initiating systemic treatment?

- A. **Cardiovascular disease**
- B. Hypothyroidism
- C. Osteoporosis
- D. Type 2 diabetes mellitus
- E. Vitamin D deficiency

Content Area: Sexual Health and Reproduction (20%)

**Critique**

*This question tests the examinee's knowledge of contraindications to systemic hormonal therapy in patients with menopausal symptoms. The correct answer is Option (A), cardiovascular disease, because initiation of systemic hormone therapy is known to significantly increase the risk of cardiac events in patients with underlying cardiovascular disease.*

*Option (B), hypothyroidism, is incorrect because although hypothyroidism is important to consider in a patient receiving systemic hormone therapy, it has not been shown to have adverse effects in patients with hypothyroidism. Option (C), osteoporosis, is incorrect because systemic hormone therapy is known to have beneficial effects in patients with osteoporosis. Option (D), type 2 diabetes mellitus, is incorrect because systemic hormone therapy is not contraindicated in patients with diabetes mellitus. Option (E), vitamin D deficiency, is incorrect because systemic hormone therapy will not affect absorption of vitamin D.*

**Question #3**

A 21-year-old transgender man comes to the office seeking hormone therapy to eliminate his menses. He only has sex with women. The patient wants to start gender-affirming hormone therapy with subcutaneous testosterone injections. He has socially transitioned for the past two years. Medical history includes depression, but the patient feels better since coming out as male. He takes no prescription medications. The patient is educated about testosterone gender-affirming hormone therapy. This medication would put the patient at the greatest risk for which of the following?

- A. Depression
- B. Endometrial hyperplasia
- C. Gynecomastia
- D. Polycythemia vera**
- E. Thrombocytopenia

Content Area: Sexual Health and Reproduction (20%)

Critique

*This question tests the examinee's knowledge of the risks associated with gender-affirming hormone therapy for masculinization. The correct answer is option (D), polycythemia vera, because systemic testosterone therapy increases the erythropoietin level, causing an increased number of red blood cells and placing the patient at greater risk for blood clots.*

*Option (A), depression, is incorrect, because gender-affirming hormone therapy improves gender congruence and is associated with improved mental health. Option (B), endometrial hyperplasia, is incorrect because although aromatization of testosterone to estradiol leading to endometrial hyperplasia is possible, the risk is negligible in comparison to the risk of polycythemia vera. Option (C), gynecomastia, is incorrect because testosterone inhibits mammary tissue growth. Option (E), thrombocytopenia, is incorrect because there is no direct effect of systemic testosterone on platelets.*

**Question #4**

A 46-year-old transgender woman comes to the office for counseling about routine age-appropriate health screenings. She started feminizing gender-affirming hormone therapy five years ago and underwent gender-affirming vaginoplasty two years ago. The patient has had vaginal penetrative intercourse in the past but currently has no sex partner. She has not had a pelvic examination since her surgical transition. Which of the following cancer screenings is most appropriate in this patient at this time?

- A. Cervical HPV screening
- B. Colonoscopy**
- C. Low-dose CT scan of the chest
- D. Pap smear
- E. Prostate-specific antigen testing

Content Area: Emerging Topics and Legal/Ethical Issues (3%)

**Critique**

*This question tests the examinee's knowledge of appropriate preventive cancer screenings in transgender patients. The correct answer is option (B), colonoscopy, because colonoscopy is used to screen for colon cancer. The American Cancer Society recommends routine colon cancer screening beginning at age 45 in a patient with no known risk factors, as described in this scenario.*

*Option (A), cervical HPV screening, and option (D), Pap smear, are incorrect because cervical and vaginal cancer screenings are not indicated in a patient who has undergone gender-affirming vaginoplasty, as described in this scenario. Option (C), low-dose CT scan of the chest, is incorrect because although lung cancer screening may be indicated in a patient older than 50 with a history of or current tobacco use, this study is not indicated for a 46-year-old patient with no known risk factors. Option (E), prostate-specific antigen testing, is incorrect because although patients who have undergone gender-affirming vaginoplasty retain the prostate gland, the patient described in this scenario is 46 years old and prostate cancer screening is not indicated until age 50 for patients without other known risk factors.*

**Question #5**

Which of the following is the most likely finding on vulvar examination of a patient with lichen sclerosus?

- A. Aphthous ulcer
- B. Clitoromegaly
- C. Hyperkeratosis**
- D. Labial asymmetry
- E. Melanocytic lesion

Content Area: General Benign Gynecologic Disorders (24%)

**Critique**

*This question tests the examinee's ability to recognize a characteristic finding of lichen sclerosus on physical examination. The correct answer is option (C), hyperkeratosis, because thickening of the skin is a classic characteristic of lichen sclerosus.*

*Option (A), aphthous ulcer, is incorrect because although it is a common finding in the oral mucosa, it is less likely to be found on the vulva. Option (B), clitoromegaly, is incorrect because patients with lichen sclerosus most commonly have atrophy of the clitoris, not enlargement of the clitoris. Option (D), labial asymmetry, is incorrect because labial asymmetry is a normal finding and not associated with a disease process. Option (E), melanocytic lesion, is incorrect because melanocytic lesions are hyperpigmented, whereas lichen sclerosus is commonly associated with hypopigmentation.*

**Question #6**

A 32-year-old woman, gravida 2, para 0101, at 32 weeks, 5 days' gestation comes to labor and delivery triage because she had sudden onset of vaginal bleeding and abdominal pain with contractions four hours ago. The symptoms began shortly after she had sexual intercourse. Medical history includes chronic uncontrolled hypertension and diabetes mellitus. Body mass index is 40 kg/m<sup>2</sup>. Blood pressure is 160/100 mmHg. Pelvic examination shows active bleeding from the vagina and significant uterine tenderness. Which of the following details of this patient's history is her greatest risk factor for placental abruption?

- A. Diabetes mellitus
- B. Hypertension**
- C. Obesity
- D. Previous preterm delivery
- E. Recent sexual intercourse

Content Area: Routine Prenatal Care/Normal Pregnancy (10%)

**Critique**

*This question tests the examinee's knowledge of risk factors for placental abruption. The correct answer is Option (B), hypertension, because patients with hypertension have a five-fold increased risk of severe abruption compared with normotensive patients.*

*Option (A), diabetes mellitus, and option (C), obesity, are incorrect, because although these conditions are associated with high-risk pregnancy, diabetes and obesity are not directly correlated with placental abruption. Option (D), previous preterm delivery, is incorrect because although a history of prior preterm delivery, as described in the scenario, increases the patient's risk for preterm delivery at 32 weeks' gestation, it has no bearing on risk for placental abruption. Option (E), recent sexual intercourse, is incorrect because although sexual intercourse can cause vaginal bleeding, it is not a risk factor for placental abruption.*

**Question #7**

A 36-year-old woman, gravida 0, comes to the office because she has had no menses for the past eight months. She has no chronic conditions and does not smoke cigarettes. Body mass index is 38 kg/m<sup>2</sup>. Temperature is 37.0°C (98.6°F), heart rate is 76/min, respirations are 18/min, and blood pressure is 134/82 mmHg. Results of laboratory studies are pending. Pelvic ultrasonography shows an endometrial lining of 2.3 cm, and endometrial biopsy shows complex endometrial hyperplasia without atypia. Which of the following is the mostly likely cause of the biopsy results in this patient?

- A. Excess androgens
- B. Excess cortisol
- C. Excess progesterone
- D. Insulin resistance
- E. Unopposed estrogen**

Content Area: Gynecologic Oncology (12%)

Critique

*This question tests the examinee's knowledge of the pathophysiology of sex hormones on the uterine lining and ability to recognize the risk factors for endometrial hyperplasia. The correct answer is option (E), unopposed estrogen, because unopposed estrogen will increase endometrial proliferation, leading to hyperplasia. Elevated body mass index and anovulation, as described in this scenario, increase the risk of unopposed estrogen.*

*Option (A), excess androgens, and option (D), insulin resistance, are incorrect because although the patient described in this scenario may also have excess androgens and insulin resistance, these conditions have no effect on the uterine lining. Option (B), excess cortisol, is incorrect because although excess cortisol can cause menstrual irregularities, as described in this scenario, it has no effect on the endometrial lining. Option (C), excess progesterone, is incorrect because although excess progesterone can cause menstrual irregularities, it is more likely to cause endometrial thinning, rather than endometrial thickening.*

**Question #8**

A 60-year-old woman, gravida 2, para 2, is referred to the gynecology office by her primary care provider after CT scan ordered to assess abdominal pain in the right lower quadrant showed possible thickening of the endometrium. Transvaginal ultrasonography ordered by the primary care provider shows an endometrial thickness of 3 mm. On ultrasonography, the uterus measures 5x4.6x4 cm, and no abnormalities of the ovaries are visualized. The patient's last menses was at 55 years of age. She has no history of vaginal bleeding or pelvic pain. Bimanual examination shows no palpable masses or cervical motion tenderness. On the basis of the imaging studies, which of the following is the most appropriate next step?

- A. Dilation and curettage
- B. Endometrial biopsy
- C. MRI of the pelvis
- D. Repeat pelvic ultrasonography in three weeks
- E. Expectant management**

Content Area: Gynecologic Oncology (12%)

**Critique**

*This question tests the examinee's ability to interpret findings on pelvic ultrasonography and determine the appropriate management in a postmenopausal patient. The correct option is Option (E), expectant management, because the patient's endometrial stripe measures 4 mm or less, and therefore no additional workup is necessary. Although the CT scan showed possible thickening of the endometrium, transvaginal ultrasonography is a more appropriate diagnostic study for endometrial evaluation.*

*Option (A), dilation and curettage, is incorrect because imaging studies show no abnormal endometrial findings that warrant further diagnostic testing. Option (B), endometrial biopsy, is incorrect because the patient's endometrial stripe is not greater than 4 mm, and ultrasonography is an acceptable alternative to endometrial sampling. Option (C), MRI of the pelvis, is incorrect because although MRI of the pelvis can be used to evaluate a thickened endometrium, the patient described in this scenario has an endometrial lining that is within normal limits and therefore MRI is not indicated at this time. Option (D), repeat ultrasonography in three weeks, is incorrect because no endometrial abnormalities have been noted on imaging and therefore no further workup is indicated at this time.*



**Question #9**

A 46-year-old woman comes to the emergency department because she has had worsening abdominal pain, intermittent fever, and nausea over the past 12 hours. Twenty-four hours ago, she underwent total robotic hysterectomy, bilateral salpingo-oophorectomy, and extensive lysis of adhesions for definitive management of severe endometriosis. Prior management of the endometriosis included two previous surgeries and six months of leuprolide therapy. Current temperature is 38.3°C (101.0°F), heart rate is 102/min, respirations are 16/min, and blood pressure is 105/76 mmHg. On laboratory studies, white blood cell count is 18,000/mm<sup>3</sup> and serum creatinine level is 1.6 mg/dL. CT scan of the abdomen and pelvis shows a moderate amount of extraluminal gas. These findings are most consistent with which of the following complications from surgery?

- A. Bowel perforation**
- B. Postoperative ileus
- C. Postoperative pelvic hematoma
- D. Small bowel obstruction
- E. Ureteral obstruction

Content Area: Surgical Care (4%)

**Critique**

*This question tests the examinee's ability to interpret results of imaging and laboratory studies to differentiate normal postoperative findings from postoperative complications. The correct answer is Option (A), bowel perforation, because although a minimal amount of extraluminal gas would be expected postoperatively, a bowel perforation is suspected based on this patient's fever, elevated serum creatinine level, and moderate extraluminal gas findings, as described in this scenario.*

*Option (B), postoperative ileus, is incorrect because although this would explain postoperative nausea and vomiting, postoperative ileus is not likely to cause fever and moderate extraluminal gas. Option (C), postoperative pelvic hematoma, is incorrect as the CT scan would provide findings of a mixed attenuation fluid collection rather than moderate extraluminal gas. Option (D), small bowel obstruction, is incorrect because, although it would explain postoperative nausea and vomiting, results of CT scans would likely show dilation of the small bowel and a transition point. Option (E), ureteral obstruction, is incorrect because although this condition can cause an elevated serum creatinine level, it is more consistent with findings of hydronephrosis on CT scan than with findings of moderate extraluminal gas, as described in this scenario.*

**Question #10**

A 23-year-old woman, gravida 1, para 1, comes to the emergency department because she has had headache and blurred vision for the past five hours. She was discharged from the hospital this morning after delivering a viable neonate by spontaneous vaginal delivery yesterday. She received routine prenatal care and was admitted because of spontaneous rupture of membranes. The patient has no chronic conditions and no history of surgical procedures. She currently takes a prenatal multivitamin daily. Temperature is 37.0°C (98.6°F), heart rate is 92/min, respirations are 14/min, and blood pressure 162/104 mmHg. Oxygen saturation is 97% on room air. Results of complete blood cell count and complete metabolic panel are pending. Magnesium sulfate therapy is initiated. Which of the following best describes the reason for administering magnesium sulfate in this patient?

- A. Blood pressure management
- B. Diuresis
- C. Headache relief
- D. Management of uterine contractions
- E. Seizure prophylaxis**

Content Area: Postpartum Care and Complications (6%)

**Critique**

*This question tests the examinee's ability to recognize the signs of preeclampsia, identify the risks of this condition, and select the appropriate pharmacological management. The correct answer is option (E), seizure prophylaxis, because seizures increase the severity of preeclampsia, which can result in life-threatening conditions such as cerebral ischemia, hemorrhage, and edema. Magnesium sulfate therapy significantly decreases the possibility of seizure by antagonizing excitation neurotransmitters.*

*Option (A), blood pressure management, is incorrect because, although managing blood pressure is important in patients with preeclampsia and administration of magnesium sulfate may decrease blood pressure, the primary indication for magnesium sulfate is seizure prophylaxis. Option (B), diuresis, is incorrect because although diuresis may improve symptoms of preeclampsia, magnesium sulfate does not cause significant diuresis. Option (C), headache relief, is incorrect because magnesium sulfate can worsen headache in patients with preeclampsia. Option (D), management of uterine contractions, is incorrect because although magnesium sulfate therapy has been used in the past to manage preterm contractions, the patient described in this scenario is postpartum.*