Question 1

A 35-year-old woman undergoes extensive laparoscopic surgery in the lithotomy position. She presents after 3 days with unresolved weakness of right hip extension and right knee flexion. There is associated sensory impairment below the right knee. Damage to which nerve is the most likely cause?

- a) Femoral
- b) Ilio-inguinal
- c) Lateral cutaneous of the thigh
- d) Obturator
- e) Sciatic

The correct answer is the sciatic nerve.

Question 2 You have been reviewing the NICE guidelines on urinary incontinence. You have been asked to perform an audit on management of urinary incontinence in your department. What is the main purpose of audit?

- a) Changing practice
- b) Collecting data
- c) Improving quality
- d) Providing patient feedback
- e) Reducing costs

The correct answer is improving quality. Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Aspects of the structure, processes and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team or service level and further monitoring is used to confirm improvement in healthcare delivery.

Question 3

A 47-year-old woman seeks advice about continuing the combined oral contraceptive pill (COCP). She is normotensive

and a non-smoker with a BMI of 25. She has no other medical history and no significant family history. She is concerned that the COCP may give her additional health risks. Which of the following malignancies would you advise she may have a small additional risk of developing due to taking the COCP?

a) Breast cancer

- b) Colorectal cancer
- c) Endometrial cancer
- d) Lung cancer
- e) Ovarian cancer
- Hide question 3 feedback

The correct answer is breast cancer. COCP use provides a protective effect against ovarian and endometrial cancer that continues for 15 years or more after stopping the pill. Women can be advised that there may be a small additional risk of developing breast cancer if they use COCP, which reduces to no risk 10 years after stopping the pill.

Question 4

A 65-year-old had a hysterectomy for endometrial cancer. She recovered well but complained of dribbling urine 2 days later and was given a course of antibiotics for a presumed UTI. On review at 4 weeks she complains of continued urinary incontinence. She has no dysuria, no sensation of urgency, needs to wear a pad at night, and intermittently voids good volumes of urine with normal flow. Urinalysis is negative. What the most likely diagnosis?

a) Fistula

- b) Occult underlying stress incontinence
- c) Overactive bladder syndrome
- d) Overflow incontinence
- e) Urinary tract infection

The correct answer is fistula. In the developed world the majority of urinary tract fistulae occur following hysterectomy (both vaginal and abdominal) and caesarean section. This is usually due

to failure to dissect the bladder free of the cervix and upper vagina. Leakage starting in the immediate postoperative period suggests direct damage. Leakage that starts 1-2 weeks postoperatively is due to avascular necrosis.

Question 5

A woman has been recommended to undergo hysterectomy and bilateral salpingo-oophorectomy for benign disease. You discuss the risks and benefits of an open versus a laparoscopic procedure. Which sort of injury is more common at laparoscopic hysterectomy compared to an open procedure?

- a) Bowel
- b) Nerve
- c) Ovary
- d) Urinary tract
- e) Vascular

The correct answer is urinary tract injury. Laparoscopic surgery involves risks to bowel, urinary tract and major blood vessels. These risks are higher in women who are obese or significantly underweight, however the risks of laparotomy are significantly greater in the morbidly obese. Urinary tract injury and vaginal cuff dehiscence are more common in the laparoscopic approach with an odds ratio of 2.61 for urinary tract injury.

Question 6

A 46-year-old para 2 woman is referred to your gynaecology clinic complaining of regular but heavy menstrual bleeding which is affecting her quality of life. Which of the following associated features indicates the need for endometrial biopsy?

- a) BMI greater than 30
- b) Dysmenorrhoea
- c) Failure of previous medical therapy
- d) Iron deficiency anaemia

e) Uterus enlarged on vaginal examination

The correct answer is failure of previous medical therapy. An endometrial biopsy should be taken if there is persistent intermenstrual bleeding or if treatment is ineffective in women over 45. An ultrasound is the first line diagnostic tool for identifying structural abnormalities and should be performed if the uterus is palpable abdominally, vaginal examination reveals a pelvic mass or if drug treatment fails.

Question 7

A 55-year-old woman is due to come in for total abdominal hysterectomy and bilateral salpingo-oophorectomy for a large mucinous ovarian cyst. She takes sequential HRT for menopausal symptoms. What is the approximate overall risk of serious complications from abdominal hysterectomy?

- a) 1 operation in every 100
- b) 2 operations in every 100
- c) 3 operations in every 100
- d) 4 operations in every 100
- e) 5 operations in every 100

The correct answer is 4 operations in every 100. The overall risk of serious complications from abdominal hysterectomy is approximately four women in every 100 (common).

Question 8

You are asked to review a 55-year-old woman with overactive bladder symptoms. She has responded poorly to bladder training and is on oxybutynin therapy. Her main complaint is nocturia, which is badly affecting her quality of life. What is the best treatment for her continuing symptoms?

- a) Darifenacin
- b) Desmopressin
- c) Mirabegrone
- d) Tolterodine
- e) Transdermal oxybutynin

The correct answer is Desmopressin. The use of desmopressin may be considered specifically to reduce nocturia in women with UI or OAB who find it a troublesome symptom. Use particular caution in women with cystic fibrosis and avoid in those over 65 years with cardiovascular disease or hypertension.

Question 9

This analysis below is taken from a meta-analysis of ovulation rates in women with polycystic ovarian syndrome (PCOS) taking metformin compared with clomifene ovulation induction therapy. Subgroup analysis was also carried out using a cut-off BMI level of 30 kg/m².

Review: Insulin-sensitising drugs (metformin, rosiglitazone, pioglitazone, D-chiro-inositol) for women with polycystic ovary syndrome, oligo amenorrhoea and subfertility Comparison: 3 Metformin versus clomiphene citrate Outcome: 3 Clinical pregnancy rate

Study or subgroup	metformin n/N	clomifene n/N	Odds Ratio M-H,Fixed,95% Cl	Weight	Odds Ratio M-H,Fixed,95% Cl	
1 Participants with BMI < 30 Karimzadeh 2010	0kg/m2 or ≤32kg/m2 17/88	11/90		37.9 %	1.72 [0.75, 3.92]	
Palomba 2005	31/50	16/50		26.3 %	3.47 [1.52, 7.90]	
PCOSMIC 2010 (1)	14/35	14/36		35.8 %	1.05 [0.40, 2.71]	
Subtotal (95% CI) Fotal events: 62 (metformin Heterogeneity: Chi ² = 3.60, Fest for overall effect: Z = 2 2 Rentisionene with RMLs 20	. df = 2 (P = 0.17); I ² 2.65 (P = 0.0081)	176 =44%	•	100.0 %	1.94 [1.19, 3.16]	
2 Participants with BMI≥ 30 Legro 2007	0kg/m2 25/208	62/209	- <mark></mark> -	89.5 %	0.32 [0.19, 0.54]	
Zain 2009	4/42	7/41		10.5 %	0.51 [0.14, 1.90]	
Zain 2009						

(1) BMI < 33

Reproduced with permission from <u>Tang T et al.</u> *Cochrane Database Syst Rev* 2012;(5):CD003053

Which statement of the following best describes the above findings?

- a) Metformin is equally as effective as clomifene in the non-obese group (BMI < 30)
- b) Metformin is equally as effective as clomifene in the obese group (BMI > 30)
- c) Metformin is less effective than clomifene in the non-obese group (BMI <30)
- d) Metformin is less effective than clomifene in the obese group (BMI >30)
- e) Metformin is more effective than clomifene in the obese group (BMI >30)

The correct answer is that metformin is less effective than clomifene in the obese group (BMI >30). Metformin is less effective than clomifene in the obese group (BMI >30 kg/m²) as the OR = 0.43 (95% CI 0.36–0.51) in favour of clomifene.

Tang T, Lord JM, Norman RJ, Yasmin E, Balen AH. Insulin-sensitising drugs (metformin, rosiglitazone, pioglitazone, D-chiro-inositol) for women with polycystic ovary syndrome, oligo amenorrhoea and subfertility. *Cochrane Database Syst Rev* 2012;(5):CD003053.

Correct interpretation of statistics is essential in modern clinical practice. This question aims to assess your ability to interpret a Forest plot.

Question 10

A 23-year-old primigravid woman presents at the emergency department at 6 weeks of gestation with threatened miscarriage. On examination, her vital signs were normal and her abdomen was soft with minimal tenderness on deep palpation. On speculum examination, there was a small amount of brown (old) blood in the vagina. A transvaginal ultrasound scan showed an intrauterine gestation sac measuring 18 mm x 15 mm x 12 mm. No yolk sac or fetal pole was visible. What would be the best management plan for her?

a) Arrange a dating scan at 12 weeks of gestation

- b) Arrange a repeat scan after 7 days
- c) Arrange serial β -HCG levels
- d) Arrange serum progesterone level
- e) Arrange surgical management of miscarriage

The correct answer is arrange a repeat scan after 7 days. For an embryonic pregnancy, if the mean gestational sac diameter is less than 25.0 mm with a transvaginal ultrasound scan and there is no visible fetal pole, a second scan after a minimum of 7 days should be performed before making a diagnosis of miscarriage. Once a gestation sac has been identified, there is no role for testing of serum β -HCG or serum progesterone level.

Question 11

A 23-year-old woman whose mother died at the age of 56 of cervical cancer comes to see you. She wants to know how to

reduce her own risk of cervical cancer. What is the single most important piece of advice you could give her?

- a) To attend regularly for cervical screening
- b) To avoid sexual promiscuity
- c) To stop smoking
- d) To stop smoking
- e) To undergo prophylactic risk-reducing bilateral salpingo-oophorectomy

The correct asnwer is to attend regularly for cervical screening. The incidence of cervical carcinoma has drastically reduced in countries with screening programmes. Only 1% of abnormal smears progress to malignancy over a long period of time. Most women with cervical cancer have not had a smear in the last 5 years and many of then have never had a smear.

Question 12

A 48-year-old woman presents 1 week after a total abdominal hysterectomy. She has persistent weakness of hip flexion and paraesthesia over the anterior and medial aspects of her left thigh. Damage to which nerve is the most likely cause?

- a) Femoral
- b) Genito-femoral
- c) Ilio-inguinal
- d) Lateral cutaneous of the thigh
- e) Obturator

The correct answer is the femoral nerve. Gynaecological surgery, especially abdominal hysterectomy, is the most common cause of iatrogenic femoral nerve injury, and injury to the femoral nerve is the most common nerve injury in gynaecological practice. This is usually caused by compression of the nerve against the pelvic sidewall by a retractor blade.

Question 13

A 16-year-old girl presents to the gynaecology outpatient clinic with primary amenorrhea. She is 148 cm tall and weighs 54 kg (BMI 24.7). Breast development is assessed as Tanner stage 2 and her pubic hair is noted to be sparse. Further examination

identifies cubitus valgus. She has no other dysmorphic features. What is the most likely diagnosis?

- a) Congenital adrenal hyperplasia
- b) Down syndrome
- c) Mayer-Rockitansky-Kusterhauser syndrome
- d) Testicular feminisation
- e) Turner syndrome

The correct answer is Turner syndrome. The karyotype is 45 XO in Turner syndrome. It is the most common cause of gonadal dysgenesis. These patients may have additional renal and cardiac anamolies. Some women may menstruate due to mosaicism, but premature ovarian failure is more common.

Question 14

A 22-year-old medical student presents with a request for contraception. Her menstrual cycle is irregular and she complains of acne and hirsutism. Previous investigation has diagnosed polycystic ovary syndrome (PCOS). She wishes to have a combined oral contraceptive with the best risk profile and most impact on her androgenic symptoms. Which one of the following is the best available option to recommend for her?

- a) Cilest[®] (ethinyl estradiol/norgestimate)
- b) Loestrin® (ethinyl estradiol/levonorgestrol)
- c) Marvelon® (ethinyl estradiol/desogestrel)
- d) Microgynon® (ethinyl estradiol/norethisterone)
- e) Yasmin® (ethinyl estradiol/drosperinone)

The correct answer is Yasmin® (ethinyl estradiol/drosperinone). From the given list, Yasmin is more beneficial in terms of management of acne and hirsuitism associated with PCOS. Women with PCOS may also be given Marvelon or Mercilon as contraception. Yasmin contains 3 mg of drosperinone, which has some antiandrogenic properties. Dianette is also useful as it contains cyproterone acetate, which is also an antiandrogenic agent. Care must be taken for women with high body mass index.

A 68-year-old woman with postmenopausal bleeding is attending for a diagnostic hysteroscopy under general anaesthetic. You discuss the complications with her. What is the incidence of serious complications during hysteroscopy?

- a) 1 in 50
- b) 1 in 100
- c) 1 in 500
- d) 1 in 1000
- e) 1 in 5000

The correct is 1 in 500. Uterine perforation is uncommon, but a small postmenopausal uterus is an independent risk factor, especially if the cervical os is stenosed. The overall risk is reported as 0.76%.

Question 16

A 36-year old woman undergoes laparoscopic resection of deep infiltrating endometriosis. You advise her regarding the risk of injury to her ureters during the surgery and the fact that this may be a direct injury or a thermal injury related to electrocautery. If she does receive a thermal injury, when would you expect her to present?

- a) 1–2 days post surgery
- b) 3–4 weeks post surgery
- c) 5–6 weeks post surgery
- d) 5–7 days post surgery
- e) 10–14 days post surgery

Hide question 7 feedback

The correct answer is 10–14 days after surgery. Thermal injuries to the ureter may result in delayed necrosis and/or fistula formation that will typically present clinically between 10 and 14 days postoperatively.

Question 17

You see a 48-year-old woman opting for a hysterectomy for management of her heavy menstrual bleeding. While obtaining

her consent for the operation you explain to her that haemorrhage requiring transfusion is a 'common' procedural risk. What is the numerical ratio for a complication when it is quoted as 'common'?

- **a)** 1/1 to 1/10
- b) 1/10 to 1/100
- c) 1/100 to 1/1000
- d) 1/1000 to 1/10 000
- e) Less than 1/10 000

The correct answer is 1/10 to 1/100.

Question 18

You prescribe hormone replacement therapy (HRT) for vasomotor instability in a healthy 51-year-old woman who has no significant past medical or family history. During her appointment you counsel her regarding the risks of estrogen and progestogen HRT. How many estimated additional cases of breast cancer are there per 1000 women using HRT for five years?

- a) 3 cases per 1000 women
- b) 6 cases per 1000 women
- c) 9 cases per 1000 women
- d) 12 cases per 1000 women
- e) 14 cases per 1000 women

The correct answer is 6 additional cases per 1000 women. Combined (estrogen and progesterone) HRT is associated with a higher risk of breast cancer than estrogen-only HRT or tibolone. There are some discrepancies between the Million Women Study (MWS) and Women's Health Initiative (WHI) study. Many of the discrepencies can be explained by the populations studies. The WHI study group was 16 000 women aged 50-79, 45% of whom had a BMI of 30 or more. The MWS looked at 1 084 110 women aged 50-64, only 18% of whom had a BMI of 30 or more.

You see a 45-year-old nulliparous woman at your gynaecology clinic who is a carrier for the BRCA2 mutation. She wishes to discuss surgery to reduce her cancer risk. What is the approximate average cumulative risk of her developing ovarian-type cancer by the age of 70?

- a) 10%
- b) 25%
- c) 40%
- d) 55%
- e) 70%

Question 20

A 42-year-old para 2 woman is referred to your gynaecology clinic complaining of regular but heavy menstrual bleeding that is affecting her quality of life. Which of the following investigations is most appropriate at the first clinic visit?

a) Full blood count (FBC)

b) Gonadotrophin assay

- c) Thyroid function tests (TFTs)
- d) Thyroid function tests (TFTs)
- e) Transvaginal ultrasound (TVS)

The correct answer is a full blood count (FBC). All women presenting with heavy menstrual bleeding should have FBC performed. An ultrasound scan is not indicated unless the uterus is palpable abdominally, an adnexal mass is palpable or medical treatment fails.

Question 21

You have informed a 45-year-old that she has stage 3c ovarian cancer. She is keen to know about her prognosis. What is the 5-year survival rate in UK for ovarian cancer?

- a) 20–25%
- b) 30–35%
- c) 40-45%

- d) 50-55%
- e) 60–65%

The correct answer is 40–45%. As with the majority of cancers, relative survival for ovarian cancer is improving. Much of the increase occurred during the 1980s and 1990s, and appears to be leveling off in the 2000s. The significant increase in 1-year survival is likely to be the result of greater use of platinum-based chemotherapy. One-year relative survival rates for ovarian cancer increased from 42% in England and Wales in 1971–1975 to 72.3% in England in 2005–2009. The 5-year survival rate for advanced ovarian cancer in 2005–2009 was 43%.

Question 22

A 16-year-old girl attends the gynaecology clinic for heavy periods and confides that she is being forced to undergo female genital mutilation (FGM) by her parents. What is the estimated number of children at risk of FGM in the UK?

- a) 500
- b) 5000
- c) 10 000
- d) 20 000
- e) 50 000

The correct answer is 20 000. It is estimated that 20 000 girls in the UK are at risk of FGM, usually through travelling abroad to facilitate the procedure. It is important that the safeguarding team are informed when a woman who has undergone FGM themselves delivers a female child.

Question 23

A 40-year-old woman presents with severe pelvic pain. She has had a myomectomy in the past through a vertical abdominal incision to the level of the umbilicus. To investigate her pelvic pain, she undergoes a diagnostic laparoscopy using the Palmer point of entry. Where is Palmer's point?

- a) 3 cm below the left costal margin in the midaxillary line
- b) 3 cm below the left costal margin in the midclavicular line
- c) 3 cm below the right costal margin in the midaxillary line
- d) 3 cm below the right costal margin in the midclavicular line
- e) 3 cm below xiphisternum in the midline

The correct answer is 3 cm below the left costal margin in the midclavicular line. Palmer's point should be used if there is a high suspicion of adhesions. Adhesions are found in up to 50% of women following midline laparotomy but are rarely found in the left upper quadrant. The usual trocar and cannulae can be inserted under direct vision or following dissection of any adhesions seen. If there are two failed attempts at insufflation then utilising Palmer's point or the open Hasson technique should be used.

Question 24

A 36-year-old woman presents to the early pregnancy assessment unit with a history of mild bleeding for 3 days and lower abdominal pain. She has had two vaginal deliveries in the past. She has factor V Leiden deficiency, which was diagnosed during her first pregnancy. Her last menstrual period was 7 weeks ago and this is an unplanned pregnancy. She has no other significant medical or surgical history. She lives with her husband and children. On ultrasound scan, she was found to have an intrauterine gestational sac with a fetal pole measuring 8 mm. No fetal heart beat was seen and was confirmed by two ultrasonographers. What is the best initial management for this woman?

- a) Book a repeat scan in 7–10 days
- b) Counsel her regarding expectant management of miscarriage
- c) Discuss medical management of miscarriage and prescribe oral administration of 200 mg mifepristone
- d) Discuss medical management of miscarriage and prescribe oral administration of 600 micrograms of misoprostol
- e) Prescribe antibiotics for 7 days and discuss expectant management of miscarriage

The correct answer is counsel her regarding expectant management of miscarriage. Expectant management should be offered as first line management for all women with a confirmed diagnosis of miscarriage, taking into account if she is at increased risk of haemorrhage (e.g. late first trimester), has risks associated with haemorrhage (e.g. unable to have a blood transfusion), evidence of infection, or her personal wishes. Mifepristone is not indicated in management of a non viable pregnancy.

A 46-year-old fit and healthy woman has urodynamically confirmed stress urinary incontinence. She has undergone pelvic floor muscle training without improvement. On examination she is noted to have a POPQ grade 1 anterior vaginal wall prolapse. In view of the effect of her urinary symptoms on her quality of life she is requesting definitive treatment. What is the most appropriate surgical intervention for her?

- a) Anterior colporrhaphy
- b) Artificial urinary sphincter
- c) Intramural bulking agent
- d) Laparoscopic colposuspension
- e) Synthetic mid-urethral tape

The correct answer is synthetic mid-urethral tape. All women with stress urinary incontinence should be referred for pelvic floor exercises in the first instance. If conservative management fails, the first line management is a synthetic mid-urethral tape procedure. Anterior colporrhaphy is not indicated since her prolapse is only stage 1 and is therefore asymptomatic, and it does not treat stress incontinence.

Question 26

A 26-year-old-woman presents to the emergency gynaecology clinic requesting emergency contraception (EC). She had unprotected sex 6 days ago. She is not currently using any contraception, having not had a partner for a year. She has a regular 28 day menstrual cycle, which can be heavy. The first day of her last period was 15 days ago. What emergency contraception option, if any, would you advise?

- a) A copper bearing intrauterine device
- b) A Mirena® coil
- c) It is too late for emergency contraception
- d) Levonelle®
- e) Ulipristal acetate

The correct answer is a copper bearing intrauterine device. The choice of EC depends on the length of time since unprotected sexual intercourse. All forms are not effective after 6 days except for the copper-bearing intrauterine device, and only in the circumstance that it is within 5 days of the earliest estimated date of ovulation.

Question 27

A 27-year-old woman has had three successive first trimester miscarriages. Investigations show that she has antiphospholipid syndrome. Which treatment option will improve the chance of a successful pregnancy?

- a) Aspirin and heparin
- b) Corticosteroids and intravenous immunoglobulin
- c) Human chorionic gonadotrophin
- d) Metformin
- e) Progesterone

The correct answer is aspirin and heparin. Antiphospholipid syndrome is present in 15% of women with recurrent miscarriage. Without treatment, the live birth rate has been reported to be as low as 10%. Corticosteroids and intravenous immunoglobulin are associated with significant maternal and fetal morbidity. Despite the association between PCOS and miscarriage that is attributed to insulin resistance and hyperinsulinaemia, a meta-analysis of 117 randomised controlled trials showed no reduction in the rate of miscarriage in those women prescribed metformin.

Question 28

A 17-year-old girl presents with a 12 hour history of lower abdominal pain. She had unprotected intercourse a week ago, which was 6 days after her last period. Her pulse is 110 beats per minute, her blood pressure is 110/70 mmHg, her temperature 37.8°C and she is tender over her lower abdomen, especially in the right iliac fossa where there is rebound tenderness. There is cervical excitation. Her Hb is 137g/l (normal 115-165) and her white cell count 17.6 x 10*9/l (normal 4-11). What is the most likely diagnosis?

a) Acute appendicitis

b) Acute pelvic inflammatory disease

- c) Ectopic pregnancy
- d) Pelvic endometriosis
- e) Ruptured corpus luteum

The correct answer is acute appendicitis. The white count and mild pyrexia suggest an infection and the localisation to the right iliac fossa makes this more likely to be appendicitis.

Question 29

A 65-year-old postmenopausal woman attends the clinic having been found to have a 4.9 cm simple cyst arising from the right ovary. There is no other abnormality on scan. Her Ca 125 is 29. She is asymptomatic and the cyst was picked up on investigation for haematuria. What is the most appropriate management?

a) Aspiration of the cyst under ultrasound guidance

- b) Laparoscopic aspiration of the cyst
- c) Repeat scan and Ca 125 test in 4 months
- d) Right oophorectomy
- e) Right ovarian cystectomy

The correct answer is repeat scan and Ca 125 test in 4 months. The risk of malignancy index (RMI) is zero since the cyst is simple and it measures less than 5 cm. Therefore, monitoring for 12 months is all that is required.

Question 30

A 67-year-old woman is referred to the rapid access clinic with a 2 day history of postmenopausal bleeding, which has since resolved. She is otherwise fit and well. The endometrial thickness is 7 mm on transvaginal ultrasound scan, the endometrium appears polypoidal at hysteroscopy and histology on an endometrial sample is reported as showing irregular and tightly packed glands with large and vesicular nuclei containing

prominent nucleoli. What is the most appropriate management for this woman?

- a) Bilateral oophorectomy
- b) Combined estrogen and progestogen hormone replacement therapy
- c) Expectant management
- d) Hysterectomy
- e) Insertion of a levonorgestrel-releasing intrauterine system

The correct answer is hysterectomy. The endometrial sample has features that are diagnostic of complex atypical hyperplasia. Atypical hyperplasia is a premalignant condition and will progress to malignancy in 29% of cases. It can co-exist with an invasive carcinoma. Less aggressive abnormalities are complex hyperplasia which will progress to malignancy in only 4% of women, but will persist in 22%. The majority of simple hyperplasias will regress spontaneously although 3% progress to complex atypical hyperplasia. Current advice is that these women should be offered a hysterectomy, especially with the risk of co-existing carcinoma. In younger women high doses of progestagens have been used with success, and there have been reported pregnancies following treatment.

Question 31

A 40-year-old woman has regular heavy menstrual bleeding. The history and investigations indicate that pharmacological treatment is appropriate. Her GP has tried tranexamic acid without success. What is the most appropriate next pharmaceutical treatment?

- a) Etamsylate
- b) Gonadotrophin-releasing hormone analogues
- c) Injected long acting progestogens
- d) Levonorgestrel-releasing intrauterine system (LNG-IUS)
- e) Norethisterone 15 mg daily from day 5 to day 26 of cycle

The correct answer is levonorgestrel-releasing intrauterine system (LNG-IUS). The LNG-IUS is first line treatment in women complaining of heavy menstrual bleeding and NICE recommends it's use before tranexamic acid.

A 23-year-woman had an ultrasound scan that was suggestive of a missed miscarriage. She underwent evacuation of the uterus and products of conception were sent for histology. The histology report confirmed that this had been a partial molar pregnancy. What are the most likely genetic features of the partial molar pregnancy?

- a) 46 XY
- b) 46 YY
- c) 46 YYY
- d) 69 XYY
- e) 69 YYY

The correct answer is 69 XYY. Complete moles are usually diploid and all chromosomes are of paternal origin. Partial molar pregnancies are usually triploid, with the additional set of chromosomes of maternal origin. Incidence varies worldwide, ranging from 2 in 1000 pregnancies in Japan to 0.6–1.1 per 1000 in Europe and North America.

Question 33

You see a 38-year-old woman with a 2.5 cm malignant tumour on her cervix and no extracervical disease on imaging. She is fit and healthy. What is her best treatment option?

a) Radical hysterectomy and bilateral pelvic lymphadenectomy

- b) Radical hysterectomy
- c) Radical trachelectomy and bilateral pelvic lymphadenectomy
- d) Radical trachelectomy
- e) Radiotherapy

The correct answer is radical hysterectomy and bilateral pelvic lymphadenectomy. Radical surgery is recommended in stage 1B1 disease if there is no contraindication to surgery. Radical trachelectomy can only be offered for fertility sparing in tumours less than 2 cm.

Question 34

A 55-year-old woman is seen in the pre-assessment clinic. She is due to undergo full staging surgery for ovarian cancer as recommended by the MDT. Her only current medications are clopidogrel and thyroxine. If the benefits of stopping clopidogrel outweigh the risks, how long should clopidogrel be stopped prior to surgery?

- **a)** 1 day
- b) 3 days
- c) 5 days
- d) 7 days
- e) 14 days

The correct answer is 7 days. You should assess the risks and benefits of stopping pre-existing antiplatelet therapy 1 week before surgery. Consider involving the multidisciplinary team in the assessment.

Question 35

A 45-year-old woman is due to have a total abdominal hysterectomy and bilateral salpingo oopherectomy for chronic pelvic pain. You receive a letter from her GP informing you that her recent cervical smear has shown borderline changes in endocervical cells. What arrangement will you make, if any, prior to her admission?

- a) Endometrial sampling
- b) HPV testing
- c) No change in her management
- d) Referral to colposcopy
- e) Repeat cervical cytology
- Hide question 6 feedback

The correct answer is referral to colposcopy. All women being considered for hysterectomy who have an uninvestigated abnormal test result or symptoms attributable to cervical cancer should have diagnostic colposcopy and an appropriate biopsy.

Question 36

1 / 1 point

A 46-year-old nulliparous woman has been referred by her GP having been treated for heavy regular menstrual bleeding with cyclical progestogens for a period of 6 months. The treatment

has failed to improve her symptoms. What is the most appropriate next line of management?

- a) Endometrial biopsy
- b) Levonorgestrel intrauterine system
- c) Non-steroidal anti-inflammatory drugs
- d) Pelvic ultrasound
- e) Tranexamic acid

The correct answer is endometrial biopsy. Endometrial biopsy should be performed if a women over 45 years of age fails to respond to first line treatment.

Question 37

A 25-year-old woman with a bicornuate uterus attends the emergency gynaecology unit requesting emergency contraception (EC). She has been on holiday and forgot to take her contraceptive pill for 3 days in the first week of the calendar pack and had unprotected sexual intercourse (UPSI) four days ago. She is in good health. Which of the following is the recommended EC?

Copper IUCD Levonorgestrel (LNG) Mifepristone Mirena IUS Ulipristal acetate (UA) Hide question 8 feedback

The correct asnwer is ulipristal acetate (UA). The Mirena coil is not licensed for EC. LNG is recommended only within 72 hours of UPSI. A copper IUCD can be used within 5 days of first UPSI in a cycle but is not indicated in the presence of a uterine anomaly. Mifepristone is not licensed for EC in the UK. UA is licensed for use within 120 hours of UPSI so is the recommended choice.

Question 38

A 30-year-old multiparous woman with a suspected borderline left ovarian tumour is awaiting laparotomy, frozen section and

conservative or complete staging surgery. She wants to know the accuracy of frozen section. How many cases diagnosed as borderline ovarian tumours on frozen section would be later reclassified as invasive tumours?

- a) One-fifth of cases
- b) One-half of cases
- c) One-quarter of cases
- d) One-tenth of cases
- e) One-third of cases

The correct answer is one-third of cases. Approximately one-third of cases reported as borderline tumours on frozen section are later reclassified as invasive tumours. For the older women with no fertility concerns, if frozen section is reported as a borderline tumour then complete staging should be undertaken.

Question 39

A 63-year-old woman with a history of postmenopausal bleeding returns to the gynaecology clinic. Recent endometrial biopsy shows complex hyperplasia without atypia. She wants to know what the risk is of these abnormal cells progressing to cancer. What is the risk of her complex hyperplasia progressing to endometrial cancer over 10 years?

- a) 4%
- b) 8%
- c) 12%
- d) 16%
- e) 20%

The correct answer is 4%. It is important to be able to counsel patients appropriately regarding their risk of malignancy and not to confuse complex hyperplasia with complex atypical hyperplasia.

A 36-year-old parous woman was diagnosed with stage 3 endometriosis. She was on GnRH (gonadotrophin releasing hormone) analogue for 12 months. Subsequently she had laparoscopic excision of recto-vaginal endometriosis. She continues to be in pain despite medical and surgical management. What is the next most appropriate management option for her?

- a) Aromatase inhibitors
- b) Danazol
- c) Long term GnRH
- d) Progesterone only pills
- e) Tibolone

The correct answer is aromatase inhibitors. Aromatase inhibitors are recommended in women with rectovaginal endometriosis which is refractory to medical or surgical treatment. It can be prescribed in combination with hormones or GnRH analogues.

Question 41

A 51-year-old woman attends your clinic with history of severe vasomotor symptoms (hot flushes, night sweats). She has a family history of breast cancer and would like to avoid hormone replacement therapy (HRT). Which non-hormonal medication is most likely to control her symptoms?

- a) Citalopram
- b) Metaprolol
- c) Nifedipine
- d) Phentolamine
- e) Venlafaxine

The correct answer is Venlafaxine. Selective serotonin and noradrenaline reuptake inhibitors are the drugs used most commonly to alleviate vasomotor symptoms. The most convincing data relates to venlafaxine, although this was a short study.

Question 42

A 26-year-old woman has been admitted with late onset severe ovarian hyperstimulation syndrome (OHSS) 10 days after embryo

transfer in an IVF cycle. She reports generalised abdominal pain and sickness for 2 days. Abdominal examination revealed significant ascites, whilst abdominal ultrasound showed bilateral enlarged ovaries with a maximal diameter of 10 cm. Which of the following combination of blood results is commonly observed on admission?

a) Haematocrit decreased, fibrinogen increased, albumin increased

- b) Haematocrit increased, fibrinogen decreased, albumin decreased
- c) Haematocrit increased, fibrinogen decreased, albumin increased
- d) Haematocrit increased, fibrinogen increased, albumin decreased
- e) Haematocrit increased, fibrinogen increased, albumin increased

The correct answer is haematocrit increased, fibrinogen increased, albumin decreased. Severe OHSS is usually associated with an increased capillary permeability resulting in a reduction of intravascular volume and haemoconcentration (increase haematocrit), and a shift of fluid into the third compartment (a reduction of serum albumin concentrations). The woman is at risk of developing thrombosis (increase fibrinogen levels).

Question 43

A 48-year-old woman undergoes a total abdominal hysterectomy and bilateral salpingo-oophrectomy and omental biopsy for an ovarian tumour. Pathology confirms a serous borderline ovarian tumour. Which of the following is a feature of borderline ovarian tumours?

- a) Absence of stromal invasion
- b) Complex histological architecture
- c) Mitotic figures
- d) Peritoneal implants
- e) Raised serum CA125

The correct asnwer is absence of stromal invasion. Borderline tumours are often found following primary surgery in younger women. They show higher proliferative activity than benign tumours, but do not show stromal invasion. They constitute 10–15% of ovarian neoplasms. Serous borderline tumours are the most common and are often (30%) bilateral.

A 23-year-old woman undergoes laparoscopic cystectomy of a right endometrioma, densely adherent to the pelvic side wall. She is discharged home soon after the surgery but presents 36 hours later with right flank pain. Which investigation would you arrange to confirm and locate any ureteric injury?

a) Computerised tomography intravenous urogram

- b) Magnetic resonance imaging
- c) Renogram
- d) Transurethral cystoscopy and stenting
- e) Ultrasonography

The correct answer is computerised tomography intravenous urogram. Endometriosis increases the risk of injury to the urinary tract. An acute injury usually presents within 48 hours with diffuse abdominal pain, distension and ileus. The chemical peritonitis has more subtle symptoms compared with peritonitis secondary to faeces or infection. A CT scan with contrast will usually demonstrate a uroperitoneum and may show direct evidence of the injury. MRI is useful in late presentations where a fistula is suspected.

Question 45

A 24-year-old woman in her first pregnancy attends the antenatal clinic. Her community midwife has referred her to a Consultant clinic as she disclosed having had female genital mutilation (FGM) at 8 years of age. Which one of the following countries is this woman LEAST likely to originate from?

- a) Egypt
- b) Eritrea
- c) Nigeria
- d) Somalia
- e) Sudan

The correct answer is Nigeria. The prevalence of FGM varies by country. The type of FGM also varies and the more severe types are commonest in Somalia. Somalia has the highest incidence at 98–100% of girls and this is usually type III.

Your consultant asks you to prescribe a 3 month course of ulipristal acetate to a woman with fibroids prior to having a hysterectomy. To which class of drugs does ulipristal acetate belong?

- a) Aromatase inhibitor
- b) Gonadotrophin releasing hormone (GnRH) antagonist
- c) Progestogen antagonist
- d) Prostaglandin
- e) Selective estrogen receptor modulator (SERM)

The correct answer is progestogen antagonist. Ulipristal acetate has been used as a drug for emergency contraception. It has recently been licensed for use in reducing the size of fibroids prior to surgery and it does this by inducing apoptosis in the cells. See the <u>British National</u> Formulary for more details.

Question 47

A 15-year-old girl attends sexual health clinic requesting termination of pregnancy. She is 7 weeks pregnant. Her boyfriend is also 15-years-old and studies in the same school. She has not informed anyone of this pregnancy. What is your most likely immediate action?

- a) Encourage her to inform her parents
- b) Inform specialist youth worker
- c) Inform the GP
- d) Inform the school head teacher
- e) Reject the request without parental consent

The correct answer is encourage her to inform her parents. Fraser guidelines relate to a case in 1984 – Gillick v West Norfolk – and provide a framework for dealing with children under the age of 16. It revolves around whether a child is capable of making a reasonable assessment of the advantages and disadvantages of treatment and thus their ability to consent to treatment. In his guidance Fraser stated that a doctor could prescribe contraceptives "provided he is satisfied in the following criteria:

That the girl (although under the age of 16 years of age) will understand his advice That he cannot persuade her to inform her parents or to allow him to inform the parents that she is seeking contraceptive advice That she is very likely to continue having sexual intercourse with or without contraceptive treatment

That unless she receives contraceptive advice or treatment her physical or mental health, or both, are likely to suffer

That her best interests require him to give her contraceptive advice, treatment, or both, without the parental consent."

The same guidelines relate to termination of pregnancy.

Question 48 A 25-year-old woman develops a wound infection after a straight forward elective subtotal hysterectomy. What is the single most likely causative organism?

a) Escherichia coli

- b) Haemophilus influenzae
- c) Methicillin resistant Staphylococcal aureus
- d) Staphylococcal aureus
- e) Streptococcus milleri

The correct answer is *Staphylococcal aureus*. All wounds are colonised with bacteria. This does not mean all wounds will become infected. If there is an infection it is likely to be from skin flora which have colonised the wound and thus *Staphylococcal aureus* is the most likely bacteria.

Question 49

A 37-year-old woman is undergoing a diagnostic laparoscopy for investigation of pelvic pain. Following insertion of the laparoscope through the umbilical port you find bowel adherent to the anterior abdominal wall in the midline. You are worried that bowel may be adherent under the umbilicus. What is the recommended course of action?

a) Continue with procedure as Palmer's test was normal

- b) Convert to laparotomy
- c) Remove port and reinsert at Palmer's point
- d) Seek surgical advice
- e) Visualise the primary trocar site from a secondary port site

The correct answer is visualise the primary trocar site from a secondary port site. If there are adhesions within the abdomen it is advisable to check the umbilical port by inspecting it through a preferably 5 mm scope via a secondary port. If damage has occurred seek surgical advice.

Question 50

A 23-year-old woman has been referred to the gynaecology clinic by her GP after being on the combined oral contraceptive pill (COCP) for 3 months. She has been on 20 micrograms of ethinyl oestradiol and 150 micrograms of desogestrel. She is experiencing irregular vaginal bleeding, which is interfering with her lifestyle. She has been taking the pills as prescribed and has not missed a dose. The pregnancy test in the clinic is negative. She reports no symptoms of abdominal pain. A cervical smear was performed 5 months ago and was normal. What is the best management option?

- a) Add extra progesterone cover for 5 days per month during the pill-free interval
- b) Advise that this is normal and review in a further 3 months
- c) Change to a COCP with 30 micrograms of ethinyl estradiol and reassess after 3 months
- d) Change to a progesterone-only formulation and reassess after 3 months
- e) Stop the pill and monitor her symptoms before trying alternative hormonal contraception

The answer is to advise that this is normal and review in a further 3 months.

Question 51

A medical student asks for clarification on the relevance of the following documentation from an examination of a woman with prolapse:

• Aa: 0; Ba: 0; C: -3; D: -4; Bp: -5; Ap: -3

Which of the following is a standard quantifying tool for the measurement of pelvic organ prolapse?

a) AFS score

- b) Baden-Walker halfway scoring system
- c) Bristol Female Lower Urinary Tract Symptoms (BFLUTS) questionnaire
- d) King's College Health Questionnaire (KHQ)
- e) Pelvic Organ Prolapse Quantification System (POP-Q)

The answer is POP-Q.

Royal College of Obstetricians and Gynaecologists; British Society of Urogynaecology. Post-Hysterectomy Vaginal Vault Prolapse. GTG 46. RCOG/BSUG; 2015.

Question 52

A 32-year-old woman had normal vaginal delivery 6 months ago. She complains of stress urinary incontinence on coughing and sneezing. Abdominal and pelvic examinations were unremarkable and stress incontinence was demonstrable. What is the most appropriate strategy to manage her stress incontinence?

- a) No action required as symptoms are likely to improve with time
- b) Pelvic floor muscle training
- c) Ring pessary
- d) Tension-free vaginal tape
- e) Urodynamics

The answer is pelvic floor muscle training. You should offer a trial of supervised pelvic floor muscle training of at least 3 months' duration as first-line treatment to women with stress or mixed urinary incontinence.

Question 53

A 65-year-old woman is referred to the gynaecology outpatient department with left-sided lower abdominal discomfort. A bimanual examination reveals discomfort in her left iliac fossa. She is concerned that she may have ovarian cancer. What is the most appropriate radiological investigation for this woman?

a) Colour flow Doppler

- b) Computed tomography
- c) Magnetic resonance imaging
- d) Positron emission tomography
- e) Transvaginal ultrasound

The answer is transvaginal ultrasound. Ultrasound is a well-established test to assess postmenopausal cysts, achieving a sensitivity of 89% and a specificity of 73%.

Question 54

A 30-year-old woman was diagnosed with polycystic ovary syndrome presents with primary subfertility of 4 years. Her BMI is 20. Her partner's semen analysis is satisfactory (WHO criteria 2010). Hysterosalpingography has confirmed bilateral tubal patency. What is the most appropriate first-line treatment for this couple?

- a) In vitro fertilization (IVF)
- b) Intracytoplasmic sperm injection (ICSI)
- c) Intrauterine insemination (IUI)
- d) Ovulation induction with clomifene citrate
- e) Ovulation induction with gonadotrophins and intrauterine insemination

The answer is ovulation induction with clomifene citrate.

Question 55

A group of trainees are preparing a tutorial session on laparoscopic hysterectomies. They plan to review the risks of urinary tract damage associated with laparoscopic hysterectomy in order to provide information about the risks and diagnosis of urinary tract injury. What important information as part of the tutorial needs to be included:

Damage to the ureter at the vesico-ureteric junction is the most common urinary tract injury MRI is suboptimal to diagnose vesico-vaginal fistula because of poor tissue contrast in the area

The most common site of bladder injury is in the midline above the interureteric bar

Thermal injuries usually present within 72 hours with uroperitoneum or vesico-vaginal fistula Traumatic bladder injury is prevented by catheterisation

The answer is that the most common site of bladder injury is in the midline above the interureteric bar.

Question 56

An ST3 is asked to review a previously fit woman. She is 6 hours postoperative following a laparoscopic hysterectomy. She looks pale and is confused and agitated. Her pulse is 120 beats per minute, respiratory rate is 40 breaths per minute and her blood pressure is 60/40 mmHg. She has a urine output of 5 ml per hour. Her weight is 70 kg. Approximately what percentage of her blood volume has she lost?

a) 10–15%

- b) 20–25%
- c) 30–35%
- d) 40-45%
- e) 50–55%

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The answer is 30–35%.

Question 57

A 52-year-old postmenopausal woman wishes to discuss the option of hormone replacement therapy (HRT). She is particularly concerned about the risk of breast cancer. Which study focuses mainly on the risk of breast cancer associated with HRT?

a) The Cochrane Collaboration Systematic Review 2012

- b) The Heart and Estrogen/Progestin Replacement Study (HERS) I & II
- c) The Million Women Study
- d) The Women's Health Initiative Study
- e) The Women's Hormone Intervention Secondary Prevention Study

The answer is The Million Women Study. Women aged 50–64 years in the UK attending the NHS breast screening programme were invited to take part in this study, and this was subsequently followed by the completion of a questionnaire. A significant increased risk of breast cancer was seen in the women on combined HRT (estrogen and progestogens) compared with estrogen only and tibolone.

Question 58

A 57-year-old postmenopausal women is referred by her GP following the incidental finding of an endometrial polyp on a transvaginal scan during the investigation of lower abdominal pain. She is otherwise asymptomatic. What is the incidence of atypical hyperplasia in this case?

a) 0.6%

- b) 1.2%
- c) 2%
- d) 3.1%
- e) 4.3%

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The answer is 1.2%.

Question 59

A 28-year-old nulliparous woman presents with symptoms of overactive bladder (OAB) with urgency urinary incontinence. Her urinalysis is negative and a bladder diary shows a daytime frequency of 12-14 and a nocturnal frequency of of 2. She is very concerned as it affects her quality of life. What is the prevalence of OAB in adult females?

- a) 13–16%
- b) 17-20%
- c) 21–24%
- d) 5-8%
- e) 9–12%

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The answer is 13–16%.

Done