



Clinical skills

SBAs

1. A 28-year-old woman is admitted to the gynaecology ward with persistent nausea and vomiting in early pregnancy. Her serum urea and electrolytes are as follows:

Sodium	130 mmol/l
Potassium	3.0 mmol/l
Urea	4.3 mmol/l
Creatinine	100 µmol/l

What would be the most appropriate agent for electrolyte replacement therapy?

- A. Intravenous potassium chloride 0.3% with glucose 5% solution
 - B. Intravenous potassium chloride 0.1% with sodium chloride 0.45% solution
 - C. Intravenous potassium chloride 0.3% with sodium chloride 0.9% solution
 - D. Oral potassium bicarbonate 500 mg with potassium acid tartrate 300 mg
 - E. Oral potassium chloride 600 mg tablets
2. What are the constituents of a litre of Hartmann's solution (in mmol)?

	Sodium	Potassium	Calcium	Bicarbonate	Chloride
A	131	5	2	29	111
B	136	7.7	2	30	120
C	140	7.5	5	29	111
D	145	5	2	29	150
E	150	7.5	10	29	111

3. A 34-year-old woman is admitted for an elective caesarean section. The woman is a known carrier of methicillin-resistant *Staphylococcus aureus* (MRSA).
 Which are the most appropriate prophylactic antibiotics to use in this situation?

	Cefuroxime	Clindamycin	Metronidazole	Teicoplanin	Vancomycin
A	✓	✓			
B		✓	✓		
C			✓	✓	
D				✓	✓
E	✓				✓

4. A 32-year-old multiparous woman has undergone an elective caesarean section under spinal anaesthesia at term. The spinal anaesthetic included intrathecal morphine.
 What is the minimum regime of postoperative clinical observations required for this woman?
- Continue observations every 30 minutes for 2 hours
 - Continue observations every 30 minutes for 6 hours
 - Continue observations every hour for 12 hours
 - Continue observations every hour for 24 hours
 - Continue observations every hour for 36 hours
5. Each year, there are approximately 700,000 deliveries in England and Wales.
 What proportion of these women will have undergone female genital mutilation (FGM)?
- 0.1%
 - 1.5%
 - 3%
 - 4.5%
 - 6%

EMQs

Options for questions 6–8

A	500–750 in 1000
B	250 in 1000
C	10 in 1000
D	7.5 in 1000
E	5 in 1000
F	2–3 in 1000
G	2 in 1000
H	1 in 1000
I	0.5 in 1000
J	0.2 in 1000

Each of the following clinical scenarios relates to the process of consenting for a treatment procedure. For each patient, select the single most appropriate option from the list above. Each option may be used once, more than once or not at all.

- A 29-year-old woman attends the gynaecology clinic wishing to discuss laparoscopic sterilisation as she wants a permanent method of contraception. During counselling, she enquires about the risk of a serious complication.
- A junior specialty trainee is about to see a 30-year-old woman who wishes to be sterilised. Only Filshie clips are used for sterilisation in the unit where he works. What is the failure rate that should be quoted?
- A couple attend the clinic to discuss permanent methods of contraception. The woman is aged 35 years, has a body mass index (BMI) of 37 kg/m² and has had two caesarean sections. Her husband is aged 38 years. The woman is concerned about her risk of laparoscopic complications and wants her husband to consider a vasectomy. He enquires about the chance of late contraceptive failure after clearance for sterility is given following the vasectomy.

Options for questions 9 and 10

A	Amoxicillin 500 mg orally every 8 hours
B	Benzylpenicillin 3 g initially followed by 1.5 g 4 hourly
C	Cefalexin 500 mg orally every 8 hours
D	Ceftriaxone 2 g intravenous once daily
E	Clindamycin 900 mg intravenous every 8 hours
F	Co-amoxiclav 625 mg orally every 8 hours
G	Does not need antibiotic treatment
H	Gentamicin 4 mg/kg intravenous in three divided doses
I	Metronidazole 500 mg intravenous every 8 hours
J	Tetracycline 250 mg orally four times a day
K	Trimethoprim 200 mg orally twice daily
L	Vancomycin 1 g intravenous every 12 hours
M	Vancomycin 250 mg orally four times a day

Each of the following clinical scenarios relates to the choice of management for the prophylaxis or treatment of infection. For each patient, select the single most appropriate management from the list above. Each option may be used once, more than once or not at all.

9. A 24-year-old multiparous woman is in labour at 38 weeks' gestation. A high vaginal swab taken at 23 weeks of gestation grew group B *Streptococcus* in culture. She is severely allergic to penicillin.
10. A 67-year-old woman has been under treatment with various antibiotics for prolonged periods due to recurrent pneumonia. She now presents with diarrhoea and her stool culture has grown *Clostridium difficile*.

Answers

SBAs

1. Answer **C** Intravenous potassium chloride 0.3% with sodium chloride 0.9% solution

Explanation

Oral preparations are unsuitable in the given circumstances. Option B has a very low concentration of potassium unsuitable for treatment of hypokalaemia. Option A contains glucose, and glucose infusions should not be used because they can cause a further decrease in the plasma potassium concentration.

Reference

British National Formulary, 72. September 2016–March 2017.

2. Answer **A** Sodium 131 mmol, potassium 5 mmol, calcium 2 mmol, bicarbonate 29 mmol, chloride 111 mmol

Explanation

Hartmann's solution is one of the commonest intravenous infusions used in day-to-day practice on the ward. All grades of doctors must know its composition.

Reference

British National Formulary, 72. September 2016–March 2017.

3. Answer **D** Teicoplanin and vancomycin

Explanation

For MRSA carriers, teicoplanin or vancomycin should be used.

Reference

British National Formulary, 72. Bacterial infection. September 2016–March 2017.

4. Answer **D** Continue observations every hour for 24 hours

Explanation

For women who have had intrathecal opioids, there should be a minimum hourly observation of respiratory rate, sedation and pain scores for at least 12 hours for diamorphine and 24 hours for morphine.

Reference

NICE. Caesarean section. *NICE Clinical Guideline (CG 132)*. November 2011.

5. Answer **B** 1.5%

Explanation

Since 2008, it has been estimated that 1.5% of women each year giving birth in England and Wales have undergone FGM.

Reference

Hussain S, Rymer J. Tackling female genital mutilation in the UK. *The Obstetrician & Gynaecologist* 2017;19:273–8.

EMQs

6. Answer G 2 in 1000

Explanation

Serious risks of laparoscopy include the overall risk of serious complications from diagnostic laparoscopy, which occur in approximately two women in every 1000.

7. Answer F 2–3 in 1000

Explanation

The longest period of available follow-up data for the most commonly used method in the UK, the Filshie clip, suggests a failure rate of 2–3 in 1000 procedures at 10 years.

8. Answer I 0.5 in 1000

Explanation

Individuals should be informed that a vasectomy has an associated failure rate and that pregnancy can occur several years after vasectomy. The contraceptive failure rate should be quoted as approximately 1 in 2000 (0.05%) after clearance has been given.

References

FSRH. Male and female sterilisation, *FSRH Clinical Guidance*. September 2014.
RCOG. Diagnostic laparoscopy. *RCOG Consent Advice No. 2*. June 2017.

9. Answer L Vancomycin 1 g intravenous every 12 hours

Explanation

Provided a woman has not had a severe allergy to penicillin, a cephalosporin should be used. If there is any evidence of a severe allergy to penicillin, vancomycin should be used.

Reference

RCOG. Prevention of early-onset neonatal group B streptococcal disease. *RCOG GTG No. 36*. September 2017.

10. Answer M Vancomycin 250 mg orally four times a day

Explanation

For *C. difficile* infection, oral administration of vancomycin is more effective.

Reference

British National Formulary, 72. Infection. September 2016–March 2017.