

MCQs

The MCQ section in *Anaesthesia and intensive care medicine* is designed to test your knowledge of selected topics in this issue of the journal. The correct answers are given at the foot of the page.

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Questions

1 Clinical assessment of renal function

(pages 302–4)

Which of the following statements are true regarding serum creatinine?

- A ☐ Creatinine is a by-product of the metabolism of creatine in skeletal muscle
- B ☐ Production of creatinine is directly proportional to lean body mass
- C ☐ Rhabdomyolysis can elevate serum creatinine independently of changes in glomerular filtration rate
- D ☐ Trimethoprim increases tubular secretion of creatinine
- E ☐ The relationship between serum creatinine and glomerular filtration rate is linear

2 Fluid and electrolyte problems in renal dysfunction

(pages 287–90)

Which of the following statements are true regarding hypermagnesaemia?

- A ☐ Hypermagnesaemia is characterized by brisk tendon reflexes
- B ☐ Calcium chloride can be used in the treatment of hypermagnesaemia
- C ☐ Insulin and dextrose infusion has a role in the management of hypermagnesaemia
- D ☐ Diuretics are ineffective in treating hypermagnesaemia
- E ☐ High magnesium levels can be associated with respiratory weakness

3 Laboratory tests of renal function

(pages 291–4)

Serum levels of which of the following hormones can be altered in renal disease?

- A ☐ Insulin
- B ☐ Calcitonin
- C ☐ Parathyroid hormone
- D ☐ Erythropoietin
- E ☐ Calcitriol

4 Anaesthesia for urological surgery

(pages 307–12)

Which of the following statements are true regarding TURP (transurethral resection of the prostate) syndrome?

- A ☐ Neuroaxial anaesthesia allows early identification of symptoms
- B ☐ Risk of the syndrome increases with higher hydrostatic pressures of irrigant fluid
- C ☐ Frusemide is avoided to treat fluid overload as it worsens hyponatraemia
- D ☐ Rapid correction of sodium is recommended
- E ☐ Visual disturbances can occur because of glycine toxicity

5 Renal blood flow, glomerular filtration and plasma clearance

(pages 263–7)

Which of the following statements are true regarding laboratory tests of renal function?

- A ☐ Para-aminohippuric acid (PAH) is metabolized in the kidney
- B ☐ Inulin is freely filtered and excreted unchanged
- C ☐ Creatinine clearance can underestimate glomerular filtration rate
- D ☐ If a solute clearance is less than that of inulin clearance, then there is net reabsorption of the solute
- E ☐ Proximal nephron function can be estimated using clearance of lithium

6 Role of the kidney in acid–base balance

(pages 274–6)

Reabsorption of the filtered bicarbonate in the proximal tubule is increased by which of the following?

- A ☐ Increased sympathetic activity
- B ☐ Angiotensin II
- C ☐ Parathormone
- D ☐ Atrial natriuretic peptide
- E ☐ Extracellular fluid expansion

Correct answers 1 (A, B, C) 2 (B, C, E) 3 (A, B, C, D, E) 4 (A, B, E) 5 (B, D, E) 6 (A, B)