

## SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

(Code SMJ 201512B)

**Question 1.** Signs and symptoms of ketamine-induced cystitis include:

- (a) Lower urinary tract symptoms such as dysuria, frequency and urgency.
- (b) Gross haematuria.
- (c) Fever, chills and rigors.
- (d) Suprapubic pain on bladder filling.

True	False
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

**Question 2.** A 31-year-old, male chronic smoker of 20 pack-years with a history of ketamine ingestion presents with intractable urinary tract symptoms. The investigations include:

- (a) Serum creatinine and estimation of renal function.
- (b) Early morning urine to test for acid-fast bacilli smear and tuberculosis culture.
- (c) Ultrasonography of the kidneys, ureter and bladder.
- (d) Urinalysis and urine culture.

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**Question 3.** The same patient then undergoes computed tomography urography, which reveals right hydronephrosis with upper ureteric stricture and a small contracted bladder. Are the following statements true or false:

- (a) Ketamine-induced cystitis (KC) is unlikely to be the diagnosis if patient has stopped ketamine for more than a year.
- (b) Percutaneous nephrostomy may be indicated in obstructive hydronephrosis.
- (c) Clinical presentation and radiological findings alone are sufficient to clinch a diagnosis of ketamine-induced cystitis.
- (d) The direct toxic effect of ketamine and its metabolites can account for the pathogenesis of obstructive uropathy.

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
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**Question 4.** Regarding the differences between ketamine-induced cystitis (KC) and interstitial cystitis (IC):

- (a) Clinical progression of KC often waxes and wanes.
- (b) KC is often associated with systemic chronic pain disorders, such as fibromyalgia, chronic pain syndrome and irritable bowel syndrome.
- (c) Hunner's ulcers are always seen on cystoscopy in patients with IC.
- (d) IC affects women more than men in a ratio of 10:1.

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**Question 5.** Treatment of ketamine-induced cystitis includes:

- (a) Pentosan polysulfate acts by coating the bladder lining and repairing the glycosaminoglycan layer of the damaged urothelial epithelium.
- (b) Pharmacotherapy of KC is similar to that of IC.
- (c) A multidisciplinary team of medical social workers, psychiatrists and urology nurse clinicians should be involved.
- (d) Augmentation cystoplasty is indicated in all patients with frequency and small bladder volumes.

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
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### Doctor's particulars:

Name in full : \_\_\_\_\_  
 MCR number : \_\_\_\_\_ Specialty: \_\_\_\_\_  
 Email address : \_\_\_\_\_

### SUBMISSION INSTRUCTIONS:

(1) Log on at the SMJ website: <http://www.sma.org.sg/publications/smjcurrentissue.aspx> and select the appropriate set of questions. (2) Provide your name, email address and MCR number. (3) Select your answers and click "Submit".

### RESULTS:

(1) Answers will be published in the SMJ February 2016 issue. (2) The MCR numbers of successful candidates will be posted online at the SMJ website by 1 February 2016. (3) Passing mark is 60%. No mark will be deducted for incorrect answers. (4) The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council. (5) One CME point is awarded for successful candidates.

**Deadline for submission: (December 2015 SMJ 3B CME programme): 12 noon, 25 January 2016.**