



## RECOMMENDATION FOR CONSIDERATION

Board Meeting Date: March 16, 2016

Subject: Addition of Ketamine to Approved Medication List

VTR#: 0316-01

Committee/Task Force: Medical Advisory

Recommended Goal

Recommended Policy Change

Other:

### **Recommendation:**

**The Department of Health should amend the current “Approved Medications List for EMS Agencies, EMS Provider and Required Medications Based on License Type” to include Ketamine as an optional medication for providers above the AEMT level.**

### **Rationale [Background]:**

Violent and agitated patients pose a serious challenge for emergency medical services (EMS) personnel. Rapid control of these patients is paramount to successful prehospital evaluation and also for the safety of both the patient and crew. Sedation is often required for these patients, but the ideal choice of medication is not clear<sup>1</sup>.

Ketamine is an NMDA receptor antagonist developed in the 1960’s as a dissociative anesthetic used in both human and veterinary medicine. In addition to its traditional use in procedural anesthesia, ketamine has been studied as a sedation adjunct in the emergency department and prehospital setting for patient experiencing excited delirium. In patients requiring sedation, ketamine has been said to be an ideal drug for sedation based on its ease of administration, rapid onset and minimal adverse cardiovascular and respiratory effects<sup>2</sup>.

In Pennsylvania, the Montgomery County Office of EMS conducted a multi-agency, Department of Health approved, pilot program to evaluate the prehospital use of ketamine in excited [agitated] delirium. During the pilot, 23 patients displaying signs of agitated delirium were evaluated by ALS using the Richmond Agitation Sedation Scale (RASS) and ketamine administered according to the approved protocol. In each case sedation was achieved within the expected timeframe and there were no adverse events reported by the ALS provider(s) or emergency department personnel. Overall the experience of the participating agencies and providers in terms of ketamine’s efficacy as a sedative for agitated delirium was good, which is consistent previously published studies.

### **Medical Review [Concerns]:**

During the January 20, 2016 meeting of the PEHSC MAC, the Montgomery County Office of EMS Medical Director reported on the pilot. Based on the results of this pilot program, other published studies and their own clinical experience, the committee supports the addition of ketamine to the approved medications list as an optional medication for providers above the AEMT level

<sup>1</sup> West J Emerg Med. 2014 Nov; 15(7): 736–741.

<sup>2</sup> Keseg, D “Vitamin K or KO: Outcomes of EMS Ketamine Use” 2014 NAEMSP Annual Meeting Presentation

**Fiscal Concerns:**

The average retail cost of a 500 mg vial of ketamine is approximately \$150.00. As this is an optional medication, the EMS agency considering the addition of ketamine should, in consultation with their medical director, perform a cost-benefit analysis.

**Educational Concerns:**

The agency medical director is responsible to provide appropriate provider education and competency evaluation prior to deploying any new medication or medical device.

**Plan of Implementation:**

The Department of Health should:

1. Publish in the Pennsylvania Bulletin an amended "Approved Medications List for EMS Agencies, EMS Provider and Required Medications Based on License Type" to include Ketamine as an optional medication for providers above the AEMT level.
2. Amend the Statewide ALS Protocols by adding a protocol for excited delirium, which includes administration of ketamine when clinically indicated.
3. Authorize, by whatever means necessary, ALS agencies currently participating in the Montgomery County Office of EMS pilot program to continue administering ketamine according the approved pilot protocol to patients displaying signs of agitated delirium until such a time when ketamine is added to the approved medication list for EMS agencies and statewide protocol #8001 is revised.

The PEHSC Committee/Task Force offers consultation to the Department in regard to the content of this Vote to Recommend (VTR) and its attached documents. The PEHSC Committee/Task Force specifically offers staff or member support to participate in Department deliberations regarding this recommendation in an effort to convey committee/task force discussions.

**Board Meeting Comments/Concerns:**

One board member, who spoke in support the recommendation, mused whether the use of ketamine may extend beyond that of excited delirium? Although the use of ketamine, within the scope of this recommendation, focuses on excited delirium, like any medication, the MAC could make future recommends expanding its use in other emergency situations.

Signed: \_\_\_\_\_ Date \_\_\_\_\_  
President

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For PEHSC Use Only – PA Department of Health Response

Accept: \_\_\_\_ Table: \_\_\_\_ Modify: \_\_\_\_ Reject: \_\_\_\_

Comments:

Date of Department Response: \_\_\_\_\_