



PENNSYLVANIA EMERGENCY  
HEALTH SERVICES COUNCIL  
*Your Voice In EMS*

### RECOMMENDATION FOR CONSIDERATION

Board Meeting Date: June 15, 2016

Subject: Alternative Forms of Oral Glucose

VTR#: 0616-01

Committee/Task Force: Medical Advisory

Recommended Goal

Recommended Policy Change

Other:

#### **Recommendation:**

**The Pennsylvania Department of Health should amend the list of Required Ground and Air Ambulance Equipment and Supplies<sup>1</sup> include food-grade glucose or sucrose as an acceptable option to current requirement for “Instant Glucose (40% dextrose-d-glucose gel) 45 grams.”**

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

This recommendation permits ambulance services to carry sources of glucose and/or sucrose as an acceptable alternative to the current licensure requirement. Oral glucose is considered an essential emergency supply for the treatment of diabetic emergencies when the patient’s level of consciousness affords them to guard their own airway against aspiration. Although in many areas of the commonwealth, basic life support providers infrequently administer oral glucose due to the simultaneous dispatch of an ALS unit. BLS level agencies have long commented that the only time they access their supply of oral glucose is to check its expiration date.

In its 2015 guidelines, the American Heart Association provides evidence that oral glucose tablets or food-grade sources of glucose/sucrose is as effective, or possibly more effective than glucose gel or fruit [orange] juice<sup>2</sup>. In a study published in the Archives of Internal Medicine<sup>3</sup>, Slama et al looked at forty-one type 1 diabetics who volunteered to have hypoglycemia artificially induced. They found that symptoms were alleviated in 14 +/- .08 minutes with sucrose and glucose solution or tablets. They concluded that in moderately severe hypoglycemia, ingestion of 15g of [a] carbohydrate in the form of glucose or sucrose tablets or a solution provides an effective therapy; both sugars seem equivalent.

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

This recommendation is offered by the medical advisory committee and is not in conflict with the statewide BLS treatment protocol #702 (Altered Level of Consciousness/Diabetic Emergency).

<sup>1</sup> Based on the current list published in the PA Bulletin on April 30, 2011 (41 Pa.B. 2296)

<sup>2</sup> 2015 AHA Guidelines: Part 15 (First Aid) Hypoglycemia; Circulation: November 3, 2015

<sup>3</sup> Arch Intern Med 1990; 150:589-593

**Fiscal Concerns:**

The cost of pharmacy-grade glucose gel is significantly more (\$20-\$28 for 45 grams) than various food-grade sources of glucose or sucrose, e.g. a tube of cake icing is available at any grocery store for under \$5 each. The proven efficacy of glucose/sucrose sources apart from pharmacy-grade products, coupled with significant cost savings makes this recommendation value-added for both patients and EMS agencies.

**Educational Concerns:**

There are no educational implications associated with this recommendation apart from the EMS agency informing providers if they choose to carry an alternative form of glucose. The agency medical director should be consulted prior to making this change.

**Plan of Implementation:**

Alternative forms of glucose/sucrose should be included in the next published update of the Required Ground and Air Ambulance Equipment and Supplies.

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:**

None

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: \_\_\_\_\_