



# PENNSYLVANIA EMERGENCY HEALTH SERVICES COUNCIL

*Your Voice In EMS*

## CONCEPT FOR CONSIDERATION

Board Meeting Date: Wednesday, December 11, 2013

Subject: Weight Determination of Pediatrics

CFC#: 1213-02

Committee/Task Force: EMS for Children Committee

The PEHSC Board of Directors requests the Pennsylvania Department of Health to consider, in an effort to maintain patient safety, that all prehospital pediatric patients receiving medication(s) have their weight determined by the use of a length-based tape as the sole method of weight determination, unless documented in kilograms by the sending facility during an interfacility transfer. Additionally, after determining the patient's weight, EMS providers should record the patient's weight in kilograms when completing the Patient Care Report, where possible based on charting software limitations.

### Committee Comments:

The PA EMSC Committee members were shown evidence-based research that indicated medication dosing in the prehospital setting for pediatrics remains an area where the error rate is exceedingly high, with a study from Michigan finding that 35% of pediatric patients treated with medication received the wrong dosage<sup>1</sup>. The study noted that "All paramedics in the study had access to the BLT [Broselow-Length Tape] on their ambulance for patient treatment, but the use of the BLT was not required." While current Pennsylvania ALS protocols do suggest using a 'length-based device to estimate a patient's weight', the Committee noted that the Michigan study resulted in a change in Michigan EMS protocols. Current Michigan EMS protocols<sup>2</sup> now require the use of the Broselow-Length Tape to estimate weight "for pediatric patients with life threatening or potentially life threatening conditions," as opposed to merely suggesting its use.

Though there is currently no specific study on Pennsylvania EMS providers and pediatric medication dosing, the committee inferred, based on the data of the previous study, that Pennsylvania EMS providers are most likely not immune from the potential for high rates of medication dosing errors in pediatrics. The EMSC Committee noted that as all Pennsylvania ambulances must carry a length-based tape or chart, and all ALS ambulances and squads must carry a length-based tape, this requirement would have very little to no cost to implement, and would most likely reduce medication dosing errors.

### Board Meeting Comments/Concerns:

This CFC was also presented at the December 11, 2013 PEHSC Board of Directors meeting. After explaining the concept, the membership had no discussion or dissent related to the matter and CFC 1213-02 passed unanimously.

Signed: DMIO Jones  
President

Date 1-9-14

1. Hoyle, J.D., Davis, A.T., Putman, K.K., Trytko, J.A., & Fales, W.D. (January 2012). Medication dosing errors in pediatric patients treated by emergency medical services. *Prehospital Emergency Care*, 16(1), 59-66.
2. Michigan EMS Protocols (January 2013). "Pediatric Assessment & Treatment".  
[http://www.michigan.gov/mdch/0,4612,7-132-2946\\_5093\\_28508-132260--,00.html](http://www.michigan.gov/mdch/0,4612,7-132-2946_5093_28508-132260--,00.html)