



RECOMMENDATION FOR CONSIDERATION

Board Meeting Date: March 15, 2017

Subject: Pediatric Reference Guide

VTR#: 0317-01

Committee/Task Force: EMS for Children

Recommended Goal Recommended Policy Change Other: Addition to Protocols

Recommendation:

The Department of Health should include a pediatric reference guide in the “Resource Tables” section of the Pennsylvania Statewide BLS Protocols during the next protocol update.

Rationale [Background]:

Pediatric patients compose approximately 10% of total EMS patient contacts. As pediatric patients, specifically very young pediatric patients, compose a small minority of patients evaluated by EMS professionals, knowledge of average or acceptable patient vital signs may be lacking. While there are no published studies evaluating specifically EMS provider knowledge of pediatric vital signs, a recent assessment of pediatric educational needs reveals that EMS providers generally have anxiety when treating pediatric patients, and one of the reasons for this generalized anxiety is hypothesized to be a lack of knowledge of ‘normal’ pediatric vital signs¹. Providing the Commonwealth’s EMS professionals with easy access to standard pediatric vital signs should reduce general anxiety when treating pediatric patients, as well as increasing provider knowledge regarding pediatric patients.

Medical Review [Concerns]:

Not applicable.

Fiscal Concerns:

None.

Educational Concerns:

None.

Plan of Implementation:

The Department of Health should include a reference that is similar to the attached sample pediatric reference guide in the next protocol update and then highlight the addition of the reference guide when releasing the protocol update.

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

Board Meeting Comments/Concerns:

Signed: _____ Date _____
President

1. Hansen, M., Meckler, G., Dickinson, C., Dickenson, K., Jui, J., Lambert, W., Guise, J.M. (2014). Children's Safety Initiative: A National Assessment of Pediatric Educational Needs among Emergency Medical Services Providers. *Prehospital Emergency Care*. <http://informahealthcare.com/doi/abs/10.3109/10903127.2014.959223>

For PEHSC Use Only – PA Department of Health Response

Accept: _____ Table: _____ Modify: _____ Reject: _____

Comments:

Date of Department Response: _____

Vital Signs in Children Reference Guide

Pulse	Awake Rate	Sleeping Rate
Neonate (0-28 days)	100-205 beats per minute	90-160 beats per minute
Infant (1-12 months)	100-180	90-160
Toddler (1-2 years)	98-140	80-120
Preschooler (3-5 years)	80-120	65-100
School-aged (6-11 years)	75-118	58-90
Adolescent (≥12 years)	60-100	50-90

Respirations	
Neonates (0-28 days)	40-60 breaths per minute
Infants (1-12 months)	30-53
Toddler (1-2 years)	22-37
Preschooler (3-5 years)	20-28
School-aged (6-11 years)	18-25
Adolescent (≥12 years)	12-20

Blood Pressure	Systolic	Diastolic
Birth, preterm (<1000g)	39-59 mmHg	16-36 mmHg
Birth, term (~3kg)	60-76	31-45
Neonate (0-28 days)	67-84	35-53
Infant (1-12 months)	72-104	37-56
Toddler (1-2 years)	86-106	42-63
Preschooler (3-5 years)	89-112	46-72
School-aged (6-9 years)	97-115	57-76
Preadolescent (10-12 years)	102-120	61-80
Adolescent (≥12 years)	110-131	64-83

Note: Always consider the patient's normal range and clinical condition. Heart rate will normally increase with fever or stress.

Based on the 2015 American Heart Association's *Pediatric Advanced Life Support*, "Vital Signs in Children" Reference Guide.