Ventilation

PS-385a CLINICAL OUTCOMES AFTER BILEVEL POSITIVE AIRWAY PRESSURE (BIPAP) TREATMENT FOR ACUTE ASTHMA EXACERBATIONS

[1]C Golden, [2]M Xu, [3]CM Estrada, [4]DH Arnold. *[1]School of Medicine, Meharry Medical College, Nashville, USA; [2]Biostatistics, Vanderbilt University School of Medicine, Nashville, USA; [3]Pediatrics and Emergency Medicine, Vanderbilt University School of Medicine, Nashville, USA; [4]Pediatrics and Emergency Medicine and Center for Asthma and Environmental Health Sciences Research, Vanderbilt University School of Medicine, Nashville, USA*

10.1136/archdischild-2014-307384.681

Aims To examine whether bilevel positive airway pressure (BiPAP) for children with acute asthma exacerbations not approaching respiratory failure (not meeting NIH and GINA guidelines for noninvasive ventilation) is associated with improved clinical outcomes.

Methods We prospectively enrolled children 5–17 years with exacerbations not meeting respiratory failure guidelines for BiPAP use in a paediatric emergency department. We modelled propensity scores for BiPAP treatment then used propensity score matching to estimate the associations of BiPAP treatment with hospital admission; PICU admission; hospital length-of-stay; and time to Q4 hr albuterol as a metric of clinical improvement.

Results Amongst 933 participants, median [IQR] age was 8.8 [6.9,11.2] years, male 61%, and African-American 59%. BiPAP-treated participants (n = 45) had similar demographic characteristics to BiPAP-untreated participants in the matched analysis and significantly greater likelihood of hospital and PICU admission (**Table**).

Conclusions BiPAP treatment for paediatric patients with asthma exacerbations not meeting respiratory failure guidelines may be associated with greater resource utilisation without evidence of improved outcomes.

Abstract PS-385a Table 1 Propensity score matching for participants who were treated with BiPAP

	BiPAP Treatment Status	
	Not treated	Treated
Characteristic	(n = 45)	(n = 45)
Acute Asthma Intensity Research Score[1]	8 [7, 10]	9 [7, 10]
Age (Years)	8.4 [6.7, 11.6]	8.3 [6.9, 10.8]
Male gender	60%	64%
Symptom duration (Days)	1 [0.5, 3]	1.5 [0.5, 3.5]
Prior PICU admission 2° asthma	44%	40%
Prior respiratory failure 2° asthma	9%	7%
Public insurance	76%	67%
Outcomes		
Hospitalized[2]	36%	96%
PICU admission[2]	9%	53%
Hospital length-of-stay (Hours)[3]	23 [14, 41]	41 [20, 47]
Time to Q4 hr albuterol (Hours)[4]	6.6 [3.8, 13.4]	9.5 [5.5, 18.5]

Median [IQR] unless otherwise specified

1. Moderate=7–11; severe=12–16
2. $p < 0.001$
3. $p = 0.07$
4. $p = 0.14$

Adolescent Health

PO-0001 ASSESSMENT OF PHYSICAL ACTIVITY AMONG ADOLESCENTS: A CROSS- SECTIONAL STUDY IN ANAND DISTRICT, INDIA

[1]H Dave, [2]R Desai, [2]AG Phatak, [3]R Vasa, [1]S Nimbalkar. *[1]Department of Pediatrics, Pramukhswami Medical College, Karamsad, India; [2]Central Research Services, Charutar Arogya Mandal, Karamsad, India; [3]Department of Neonatology, University of Chicago Medical Center and Mercy Hospital and Medical Center, Chicago, USA*

10.1136/archdischild-2014-307384.682

Background and aims Inadequate physical activity (PA) is a common thread running through most public health problems across the world. PA declines during the lifespan, especially during adolescence. We studied the current status of PA of children in Anand, India in the age group 11–19 years.

Methods Cross-sectional study using a self-reported Physical Activity Questionnaire (PAQ-A) which has consistently high validity and moderate reliability. It comprehensively captures the PA in last 7 days. Self-reported anthropometric data and socio-demographic data were also recorded. Of 3337 participants, anthropometric data was not reported in 784.

Results Mean physical activity level (n = 3337) amongst adolescents was 2.62 (0.72 SD). In females it was 2.5670 (0 . 71 SD) and in males was 2.66 (0.73 SD). Correlating their PA with age, in females (n = 1410) correlation was -0.204 and in males (n = 1927) it was -.095. PA declines with age but in males not statistically significant. Lowest PA of 1.93 was reported from school (n = 231) where most students were appearing for boards within a year. Correlating PA with BMI (n = 2553), overall correlation was -0.116 showing insignificant correlation. Correlation of BMI with PA was -0.314 for an affluent school (n = 328). Most common physical activity was BICYCLING in males 55.9% and in females 51.7%. Swimming was practiced by 5.8%. Overall (n = 2617) 15.7% were overweight/obese (BMI > 23 for Indian population) In which 16.5% male and 14.8% female.

Conclusions PA in adolescents is not as per recommended levels. Solutions to improve PA need to be innovated for Indian Schools.

PO-0002 PREVALENCE OF SMOKING AMONG ADOLESCENTS IN SAUDI ARABIA: THE RELATIONSHIP TO SCHOOL CONNECTEDNESS

[1]A Al-Makadma, [2]M Moynihan. *[1]Adolescent Medicine, King Fahad Medical City, Riyadh, Saudi Arabia; [2]Adolescent Medicine, University of British Colombia, Vancouver, Canada*

10.1136/archdischild-2014-307384.683

Introduction Initiation of smoking behaviour during adolescence is associated with many negatives. In Saudi Arabia, the prevalence of teen smoking is not well understood. 2013 WHO Health Report on Global Tobacco Epidemic indicates the prevalence of current cigarette use among youth as 6% (Boys: 13%, Girls: 5%). This paper presents data from a larger study of adolescents' health developed for Saudi youth in Riyadh. The purpose of which is to describe the smoking behaviours of adolescent boys and girls aged 14–19.

Methodology A health survey was developed for Saudi youth after extensive literature review. The survey focused on adolescents' behaviours and attitudes, including questions about smoking and tobacco use. A total of 1430 Adolescents from 12