

Section C – Abstract 2 – 1:15 PM

Knowledge, Attitude & Practice Amongst Primary Care Providers & Nurses Regarding Pulse Oximetry Screening of Newborns for Critical Congenital Heart Disease

Shivaram, Pushpa; and Hokanson, John

Department of Pediatrics, Marshfield Clinic and St. Joseph Hospital, Marshfield, WI, Department of Pediatric Cardiology, University of Wisconsin School of Medicine and Public Health

Purpose: Pulse oximetry (POx) screening for critical congenital heart disease (CCHD) was endorsed by the American Academy of Pediatrics (AAP) in 2011. Although directed toward the detection of CCHD, POx screening may also identify other unrecognized health concerns in neonates. We hypothesize that there are knowledge gaps regarding implementation and interpretation of POx screening for CCHD amongst Primary care providers (PCP) and nurses. The goal of the current study is to evaluate knowledge, practices, opinions, and attitudes regarding POx screening for CCHD in newborns through surveys of PCP and nurses.

Methods: A questionnaire regarding designed to assess understanding of POx screening for CCHD emailed to PCP in the Marshfield clinic system and nurses as a web based tool. For each of the survey questions consisting of categorical/multiple choices, descriptive statistics such as frequency count, percentage, and corresponding 95% confidence interval were reported

Results: A web based email survey was sent to 150 PCP in Marshfield clinic system and 44 registered nurses in the birthing unit of St. Joseph's Hospital, Marshfield, Wisconsin. 43/150 (28.6 %) PCP and 25/44 (56.8%) nurses completed the survey. 22(51%) of the providers always screened their babies for CCHD with Pox screening..23 (52%) of the PCP disagree and 15 (34%) strongly disagree that POx screening would detect all the CHD. 30 (68%) felt Pox was beneficial and cost effective to diagnose critical congenital heart disease. Only 10/43 (23.25%) were aware of the AAP recommendations regarding POx screening. Most PCP felt lack of awareness was a barrier for successful implementation of pulse oximetry screening.

25 (100%) of 44 nurses had experience conducting Pox screening. 19 (76%) were well aware that a policy existed. 10(40%) and 2(8%) strongly disagreed that POx screening would detect all the CHD. 20 (80%) were aware about the timing of screening and 25 (100%) knew that pulse ox probe should be applied to right hand and one foot to measure pre-ductal and post-ductal saturations. Only 18 (72%) of the nurses properly identified the criteria for passing the screening. Most nurses felt lack of training and education was the barrier for pox screening and inaccurate reading was a concern.

Conclusion: Many of the PCP were not aware of the AAP recommendation or were not familiar with the testing protocol and the criteria for a newborn to pass the test. Though nurses were aware of the policy and testing protocol, they still struggled with interpretation of the screening protocol.