Airway Intubation Requirement Wristband (AIRBand) As Alerting Intervention For Difficult Airways

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Introduction

The pediatric airway can be challenging to address. Their unique physiology, consisting of an anatomically higher and smaller airway than the adult patient, can make intubation challenging. The time that one has to intubate is also pressured because children have a higher oxygen consumption compared to adults, meaning that their rate of arterial oxygen desaturation when apneic is much faster. Children with known difficult airways or tracheostomies are at an additional risk in the emergency setting due to first responder unfamiliarity. Because these patients have likely already had procedures evaluating their airway and intubation difficulty, this vital information is buried in their medical record. The objective of this study is to assess the use of an airway wristband with intubation requirements for this subset of patients in the outpatient setting.

Methods & Materials

Patients with tracheostomies or difficult airways having a documented Cormack-Lehane (CL) laryngoscopy grade were enrolled in the study. Written consent by the guardian was obtained and, patients are given a color-coded silicone wristband with their CL grade, intubating instructions, a unique code ID and reference website (myairband.com). The parent/guardian of the patient was called and intubating requirements for this study is to assess the use of the wristband were given to the patient and a medical professional about the information on the wristband, with the two in grade I and four in grade IV not liking it.

• In the first month, 41 (95%) are wearing the wristband, with the two patients being in the grade 2 group. At the end of the four month follow-up, 37 (86%) liked wearing the band, with two in grade I and four in grade II not liking it.

• In the first month, 41 (95%) are wearing the band nearly every day, with the two patients who are not being in the grade II group. At the end of the four month follow-up, 30 (70%) are wearing the band nearly every day. 100% in grade IV wore their bands every day throughout the study period.

• 33 (77%) patients were asked by a medical professional about the information on the wristband, with 89% in grade I, 30% in grade II, 90% in grade III, and 100% in grade IV.

• At the end of the study period, no parent felt that his/her child was viewed negatively from wearing the wristband.

• At the end of the study period, 33 (77%) parents’ patients felt that wearing the wristband was making a difference in their child’s health care.

Results

Number of Consented Patients Per CL Grade Who Completed 4 months of Surveys

Survey Question #10: Do you think the wristband makes a difference in your child’s healthcare?

Results: 77% of parents said Yes!

Example of Comments Received:

“I feel reassured about having the wristband even though he hasn’t needed to use it yet”

References


