

Broselow Tape Validation in Bahraini Population

Yasser Chomayil, MBBS* Alwaleed Behzad, MD* Shaikha Al Jawder, MD*Shaikha Almutawa, MD** Hytham Ghanem, MBBCh** Aneena Abraham, BDS*

Due to the high load of pediatric patients in emergency department with the urgency to intervene in such situations, a color coded Broselow Pediatric Emergency Tape (BPET) was designed, with pre-calculated medication doses to the corresponding weight estimations. The invention BPET of was based in the United States population data and accepted globally as an emergency tool to estimate the pediatric weight for rapid emergency management.

Objectives: As Broselow Tape may over or underestimate the weights in children of Kingdom of Bahrain, leading to inaccurate dosing and equipment sizing in the emergency setting, the validation study was conducted to determine correlation between Broselow tape determined weight and actual weight in Bahraini children with a possible creation of a correction factor to the Broselow tape to remodel it for the Bahraini pediatric population.

Methods: The actual weight of our studied population was measured using an electronic weighing machine, rounded to the nearest whole number. All subjects will be measured for their body length with the measuring tape from the top of the head to heel. The data was recorded manually on a standardized form and on an excel spreadsheet.

Results: There is significant variation in weight estimation of the local Bahraini studied pediatric population by the globally validated BPET displayed in number and percentage.

Conclusion: Based on the findings of our study, it appears that use of Broselow tape without any modifications to Bahraini children would lead to variation in administration of medications, mostly excessive doses in some categories (particularly in the orange category). Application of a correction factor or development of an indigenous tape based on local data might be the best solution to the suggested problem.

Keywords: Broselow tape, Pediatric resuscitation, Weight estimation in critical patients, Bahraini pediatric population

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