Pediatric Color Banding for Emergencies

La Cava, Wendy; Alex-Wasielewski, Dolly; UW/Valley Medical Center; Renton, WA

**Purpose:** To be prepared for pediatric emergencies and decrease the potential for medication and equipment errors.

**Background/Significance:** UW/VMC provides outpatient surgical services to a number of pediatric patients. Emergency situations often increase stress and risk for errors especially when caring for a surgical pediatric patient. Studies show that preparation and standardization of process decreases the chance of errors and builds clinician confidence. Although pediatric emergency situations are rare in the perioperative department at UW/VMC, preparedness and staff competency are essential. The idea of color banding pediatric patients emerged from an existing system that is used at VMC for the pediatric population. However, it had not been used in the perioperative environment. The implementation of pediatric banding in the perioperative department was a proactive approach to improve patient safety. The system allows the nurse and/or provider to focus on immediate medical interventions without having to figure things out in the moment of crisis.

**Description:** Pediatric color banding provides a standardized process for the clinician to be ready in the event of a pediatric emergency. In the perioperative department, the process was taken one step further by including an emergency medication list to be readily available. The medication doses are already calculated in kilograms (kg) using the child’s day of surgery weight. During the surgical admission process, the Broselow color tape is used to measure and determine the color category of the child. Based on the Broselow assessment, a matching color wristband is placed on the patient’s wrist. An accurate weight of the child is obtained with a weight scale. Using the patient’s weight and the computerized Ped-Med application, emergency medication doses are calculated in kg. This individualized medication sheet is posted inside the front page of the patient’s chart for quick reference. Both the colored wristband and the emergency medication list stay with the pediatric patient until the child is discharged from the perioperative department. In the event of an emergency, the colored wristband helps the team to quickly recognize which drawer should be accessed on the pediatric code cart for supplies and equipment. The tailored Ped-Med list serves as a quick reference for emergency medications with accurate dosing during a crisis.

**Evaluation and Outcome:** Education and training were provided to the Pre-op, Phase I, and Phase II nursing staff. The entire OR staff, including the anesthesia providers were informed about the new process. The staff responded to the evaluation survey with over 80% of approval for the process. Feedback indicates that majority of clinicians feel more confident and prepared for pediatric emergencies. The new system “absolutely” adds value to the workflow. Compliance of obtaining the length and weight assessments have been achieved by incentive stickers for the child and communication with parents about the safety measure. The limitation is that to this date, we have not had an emergency event to fully evaluate the process in action.
Conclusion: Caring for a pediatric patient through the surgical continuum is complex. The complexity is even more heightened in an emergency situation. Having access to important information that will mitigate stress and decrease chances of errors are vital pieces in the care of a surgical patient.

Contact: Dolly_Alex-Wasielewski@Valleymed.org