

( $p < 0.001$ ,  $r = -0.24$ ). However, no relationship was observed in the off-service group ( $p = 0.62$ ,  $r = -0.05$ ). **Conclusion:** Resident performance and trainee proximity are important factors impacting the quality of documented clinical performance assessments. Greater attention needs to be given to determining ways of improving the quality of assessments reported for residents who are appropriately progressing in their clinical competence as well as for off-service trainees.

**Keywords:** resident assessment, daily encounter cards, trainee proximity

#### LO081

##### Novel EMS spine board to accurately weigh critically ill or injured children

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**Introduction:** A rapid and accurate weight of a child can be of critical importance during pediatric emergencies. The Broselow Tape (BT) is the gold standard for estimating a child's weight based on their length. It separates children into incremental weight categories. Studies have shown that the BT is not accurate. We created a new pediatric spine board (PedEBoard) that weighs the child. The objective of this study was to compare the agreement between the actual weight vs. the PedEBoard weight and BT estimated weight of children presenting to a pediatric emergency department (ED). **Methods:** Ethics approval was obtained from McMaster University. A power calculation was done for sample size to detect 10% error. Consecutive children were recruited who presented to McMaster University's Children's ED on two days in March 2015. Children were excluded if their length was outside the BT range, non-English speaking or critically ill. Children had their weight taken by the triage nurse either on an infant scale or on a traditional standing scale. The nurse also took the child's length using a standard measuring tape or height on the standing medical scale. Infants were placed on the PedEBoard by investigators while older children were asked to lie down on the board. Investigators were blinded to the actual weight. BT weight was determined by the palmPEDi Lite app. Bland-Altman analysis was performed, comparing the percent difference between the actual weight vs. PedEBoard weight and actual weight vs. BT weight. The correlation between the PedEBoard and BT was assessed using the Spearman coefficient of rank. Data was entered into MedCalc for Windows 98, Version 15.2.2 **Results:** A total of 157 children were included in the study. The mean actual weight was 19.4kg (95% CI 17.4 to 21.3) vs. the PedEBoard weight 19.4kg (95% CI 17.4 to 21.3) vs. the BT weight 16.9kg (95% CI 15.6 to 18.2). Bland-Altman percent difference was 0.1% (95% CI -2.0 to 1.8%) between the actual weight and the PedEBoard weight and 9.6% (95% CI -22.0% to 41.2%) between the actual weight and the BT weight. The Spearman coefficient of rank correlation was 1.000  $p < 0.0001$  (95% CI 0.999 to 1.000) for the PedEBoard and 0.969  $p < 0.001$  (95% CI 0.957 to 0.977) for the BT. The BT provided the wrong weight category 80% of the time vs. 8% for the PedEBoard. **Conclusion:** The PedEBoard closely agreed with the actual weight of the child while the Broselow Tape estimate often did not.

**Keywords:** pediatrics, resuscitation, Broselow Tape

#### LO082

##### EMS response to police use of force events: periods of personal and professional risk in prehospital care

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**Introduction:** This study provides an estimate of the number of EMS calls related to police use of force events that involve struggling, intoxicated and/or emotionally distressed patients. We hypothesized there would be under-reporting of EMS risk by paramedic agencies due to lack of standardized reporting of police events by EMS services and lack of a common linked case number between prehospital agencies in Canada. **Methods:** Data were collected during a multi-site, prospective, consecutive cohort study of police use of force in 4 Canadian cities using standardized data forms. Use of force was defined a priori and the application of handcuffs was not considered a force modality. Inclusion criteria: all subjects  $\geq 18$  years of age involved in a use of force police-public encounter. We defined risk to EMS as the presence of police- and/or paramedic- assessments of violent or struggling subjects on the scene. Three separate data forms (police-report of use of force, EMS encounter, and Emergency Department (ED) visit) were linked in the study by unique ID. When police-reported EMS was activated, investigators hand searched the EMS service reports at the relevant agencies for matching call sheets. **Results:** From Jan 2010 to Dec 2012, we studied 3310 consecutive public-police interactions involving use of force above simple joint lock application. Subjects were male (86%) with a mean age of 33 yrs; 85% were assessed by police as emotionally disturbed, intoxicated with drugs and/or alcohol or a combination of those. 45% were violent at the scene. Police-reported EMS attendance in 24% (809/3310) of use of force events, of which only 43% (349/809) of EMS run sheets were available. In events with violent subjects, EMS transported 51% to ED compared to 35% by police transport ( $\chi^2 = 79.7$ ,  $p = 0.00$ ). **Conclusion:** We identified periods of professional and physical risk to paramedics attending police use of force events and found that risk significantly underrepresented in EMS data. Paramedical training would benefit from policy and procedures for response to police calls and the violent patient, the majority of whom are struggling. A common linked case number in prehospital care would enable more specific quantification of the risk for EMS providers involved in police events.

**Keywords:** paramedicine, police, intoxication

#### LO083

##### Outcomes and resource utilization among syncope patients transported by emergency medical services

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**Introduction:** Syncope accounts for 1% of all annual emergency department (ED) visits in Canada with only 10.3% suffering serious adverse event (SAE) within 30-days. However, 66% are transported to ED by Emergency Medical Services (EMS). Our objectives were to assess 30 day SAE among syncope patients transported by Emergency medical services (EMS), assess the need to develop an EMS clinical decision aid, and estimate anticipated health care savings by diverting patients from the ED to alternative care pathways. **Methods:** We conducted a prospective cohort study at four tertiary care EDs from Feb 2012 to Feb 2013. We included patients  $\geq 16$  years of age with syncope and who arrived to the ED via EMS. We collected patient demographics, medical history, 30 day SAE, EMS time points (call received, EMS arrival on scene, EMS departure from scene, time of transfer of care in the ED), critical EMS interventions, and ED