access to AEDs. However, inadequate AED training represents a significant barrier to successful defibrillation in the event of an OHCA. Our results showed that a simple focused AED training could improve the performance of school workers and optimize the chain of survival.
Keywords: Automated external defibrillators, Out-of-hospital cardiac arrest, Resuscitation

MP56

Intraosseous versus intravenous access in pediatric out-of-hospital cardiac arrest: an examination of prehospital vascular access methods and survival rates

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Introduction: Intraosseous (IO) and intravenous (IV) access to the vascular system for the delivery of fluid and medication is a component of advanced pediatric resuscitation. Data describing the use of IV or IO vascular access methods and outcomes of pediatric out-of-hospital cardiac arrest (OHCA) are limited. **Methods:** We analyzed prospectively collected data of non-traumatic OHCA of the Resuscitation Outcomes Consortium registry in Canada and the USA (2011-2015). We included patients 17 years of age and younger who were treated by emergency medical services (EMS). We described the vascular access routes utilized, and the success rate of these attempts. We performed a logistic regression model, to evaluate the association of vascular access route and survival, adjusting for age, sex, shockable initial rhythm, witnessed status, public location, EMS arrival interval and time from 911 call to vascular access. In this model, we excluded patients with failed, multiple site or no vascular access attempts during the resuscitation. **Results:** Of 1549 non-traumatic pediatric OHCA, 822/895 (92%) and 345/488 (71%) had successful IO and IV vascular access attempts, respectively. IO access was more common in younger cases. Of 761 cases included in the regression model, 30/601 (5%) of IO-treated cases survived to hospital discharge, in comparison to 40/160 (25%) of IV-treated cases. Intraosseous access was associated with a decreased survival to hospital discharge (adjusted OR 0.46; 95% CI 0.21 to 0.98). **Conclusion:** In pediatric patients with OHCA, intraosseous vascular access was more commonly successful than IV placement and more common among younger cases. However, in cases with successful vascular access, IO use was associated with lower survival to hospital discharge.
Keywords: intravascular access, out-of-hospital cardiac arrest, pediatrics

MP57

Effect of grip strength measured in the emergency department on the risk of functional decline following a minor trauma in robust elderly: a pan-Canadian study

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Introduction: The elderly (65 yo and more) increase in Canada is well documented along with a disproportionate use of Emergency Departments after a minor injury. These patients requires specific care given a 16% risk of functional decline following a visit to ED. To prevent functional decline, a multidimensional assessment of the elderly is recommended in the emergency department. Objective: To determine if ED grip strength can predict functional decline at 3 or 6 months post-injury. **Methods:** A multicentre prospective study in 5 ED across Canada was realized between 2013 and 16. Patients 65 years old and over, autonomous in daily living activities and consulting the emergency department for minor trauma were recruited 7 days a week. Clinical-demographic data, functional status, fear of falling, number of falls in the last month, grip strength measurement were collected in the ED. Functional decline (loss of at least points to functional status) was calculated at 3 and 6 months. Descriptive statistics and linear regression model with repeated measurements were used to determine if the grip strength was predictive of functional decline at 3 or 6 months. **Results:** 387 patient were recruited. Mean age was 74 ± 7 years old, 52% were male. XXX experienced a fall in the last month. The initial maximum grip strength was (24 ± 10 intervention vs. 28 ± 13 control; $p \leq 0.05$). grip strength is associated with pre-injury functional status ($p < 0.0001$) and fear of falling ($p = 0.0001$) but does not predict 3 or 6 month functional decline. **Conclusion:** Given the strong association with fear of falling and functional status at initial ED evaluation, we recommend that grip strength measurement could be included in a multidisciplinary geriatric emergency department assessment as needed.
Keywords: elderly, functional decline, grip strength

MP58

Have opioid prescription by emergency physicians changed significantly over five years?

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Introduction: It is believed by some that emergency physicians prescribe more opioids than required to manage patients' pain, and this may contribute to opioid misuse. The objective of our study was to assess if there has been a change in opioid prescribing practices by emergency physicians over time for undifferentiated abdominal pain. **Methods:** A medical record review for adult patients presenting at two urban academic tertiary care emergency departments was conducted for two distinct time periods; the years of 2012 and 2017. The first 500 patients within each time period with a discharge diagnosis of "abdominal pain" or "abdominal pain not yet diagnosed" were included. Data were collected regarding analgesia received in the emergency department and opioid prescriptions written. Opioids were standardized into morphine equivalent doses to compare quantities of opioids prescribed. Analyses included t-test for continuous and chi-square for categorical data. **Results:** 1,000 patients were included in our study. The mean age was 42.0 years and 69.6% of patients were female. Comparing 2017 to 2012, there was a non-significant decrease in opioid prescriptions written for patients discharged directly by emergency physicians, from 17.8% to 14.4% ($p = 0.14$). Mean opioid quantities per prescription decreased from 130.4 milligrams of morphine equivalents per prescription to 98.9 milligrams per prescription ($p = 0.002$). 13.9% of opioid prescriptions in 2017 were for more than 3 days, which is a decrease from 28.1% in 2012. During the emergency department care, there was an increase in foundational analgesia use prior to initiating opioids from 17.6% to 26.8% ($p = 0.001$). There was also a decrease for within ED opioid analgesia use from 40.0% to 32.8% ($p = 0.018$). **Conclusion:** Opioid prescription rates did not change significantly during our study. However, physicians reduced the quantity of opioids per prescription and used less opioid analgesia in the emergency department for abdominal pain of undetermined etiology.
Keywords: analgesia, opioids