Introduction: Les patients ayant un retour de circulation spontanée (RCS) durant la phase préhospitalière de leur réanimation suite à un arrêt cardiaque extrahospitalier (ACEH) ont un meilleur taux de survie que ceux dont le rythme initial était inconnu. Nous avons comparé entre les groupes (rythme défibrillable [RD], activité électrique sans pouls [AESP] et asystolie) les taux de RCS préhospitaliers et le temps nécessaires pour obtenir une majorité des RCS préhospitaliers et des RCS préhospitaliers menant à une survie en fonction du rythme initial. 

Methods: La présente étude de cohorte a été réalisée à partir des bases de données collectées de la Corporation d’Urgences-santé dans la région de Montréal entre 2010 et 2015. Les patients ayant un CEH d’origine médicale ont été inclus. Les patients dont l’ACEH était témoigné par les paramédics ont été exclus, tout comme ceux dont le rythme initial était inconnu. Nous avons comparé les groupes (rythme défibrillable [RD], activité électrique sans pouls [AESP] et asystolie) le temps de réanimation et le temps nécessaire pour obtenir une majorité des RCS préhospitaliers et des RCS préhospitaliers menant à une survie. 

Results: Un total de 6002 patients (3851 hommes et 2151 femmes) d’un âge moyen de 52 ans (+10) ont été inclus dans l’étude, parmi lesquels 536 (9%) ont survécu jusqu’à leur congé hospitalier et 1310 (22%) ont obtenu un RCS préhospitalier. Un total de 1545 (26%) patients avaient un RD, 1654 (28%) une AESP et 2803 (47%) une asystolie. Les patients avec un RD ont obtenu plus fréquemment un RCS préhospitalier et un RCS préhospitalier menant à une survie que les patients avec une AESP qui eux même avaient un meilleur pronostic que ceux avec une asystolie. 777 patients (55%) vs 385 (23%) vs 148 (5%), p <0.001; 431 [28%] vs 85 [5%] vs 7 [0,2%], p < 0.001, respectivement. Les RCS survenaient également plus rapidement lorsque le rythme initial était un RD (13 minutes [±12] vs 18 [±13] vs 25 [±12], p < 0.001). Cependant, une période de réanimation plus longue était nécessaire afin d’obtenir 95% des RCS préhospitaliers menant à une survie pour les patients avec un RD (26 minutes vs 21 minutes vs 21 minutes). Conclusion: Les patients avec un rythme initial défibrillable suite à leur ACEH sont à meilleur pronostic. Il serait envisageable de transporter plus rapidement vers l’hôpital les patients avec une AESP ou une asystolie que ceux avec un rythme défibrillable si l’arrêt des manœuvres n’est pas envisagé.

Keywords: cardiac rhythm, out-of-hospital cardiac arrest, return of spontaneous circulation

Introduction: Emergency Department (ED) crowding is a pervasive problem and is associated with adverse patient outcomes. Yet, there are no widely accepted, universal ED crowding metrics. The objective of this study is to identify ED crowding metrics with the strongest association to the risk of ED revisits within 72 hours, which is a patient-oriented adverse outcome. 

Methods: Crowding metrics, patient characteristics and outcomes were obtained from administrative data for all ED encounters from 2011-2014 for three adult EDs in Calgary, AB. The data were randomly divided into three partitions for cross-validation, and further divided by CTAS category 1, 2/3 and 4/5. Twenty unique ED crowding metrics were calculated and assigned to each patient seen on each calendar day or shift, to standardize the exposure. Logistic regression models were fitted with 72h ED revisit as the dependent variable, and an individual crowding metric along with a common list of confounders as independent variables. Adjusted odds ratios (OR) for the 72h return visits were obtained for each crowding metric. The strength of associations between 72h revisits and crowding metrics were compared using Akaike’s Information Criterion and Akaike weights. 

Results: This analysis is based on 1,149,939 ED encounters. Across all CTAS groups, INPUT metrics (ED census, ED occupancy, waiting time, EMS offload delay, LWBS%), were only weakly associated with the risk of 72h re-visit. Among THROUGHPUT metrics, ED Length of Stay and MD Care Time had similar adjusted ORs for 72h ED re-visit (range 0.99-1.15). Akaike weights ranging from 0.3/1.00 to 0.4/1.00 indicate that both THROUGHPUT metrics are reasonable predictors of 72h ED re-visits. All OUTPUT metrics (boarding time, % of boarded patients, % of beds occupied by boarded patients, hospital occupancy) had statistically significant ORs for 72h ED re-visits. The median boarding time had the highest adjusted OR for 72h ED re-visit (adjusted OR 1.40, 95% CI 1.33-1.47) and highest Akaike weight (0.97/1.00) compared to all other OUTPUT metrics, indicating that median boarding time had the strongest association with 72h re-visits. Conclusion: ED THROUGHPUT and OUTPUT metrics had consistent associations with 72h ED re-visits, while INPUT metrics had little to no association with 72h re-visits. Median boarding time is the strongest predictor of 72h re-visits, indicating that this may be the most meaningful measure of ED crowding.

Keywords: emergency department crowding

Association between ED crowding metrics and 72h-hour ED re-visits: Which crowding metrics are most highly associated with patient-oriented adverse outcomes? 

A. McRae, MD, PhD, G. Innes, MD, MSc, M. Schull, MD, MSc, E. Lang, MD, E. Grafstein, MD, MSc, B. Rowe, MD, MSc, R. Rosychuk, PhD, University of Calgary, Calgary, AB

Introduction: According to WHO, one third of patients aged ≥65 fall every year. Those falls account for 25% of all geriatric emergency department (ED) visits. Fear of falling (FOF) is common in older patients who sustained a fall and is associated with a decline in mobility and health issues for patients. We hypothesized that there is an association between FOF and return to ED (RTED) and future falls. 

Objective: To assess the relation between FOF and RTED and subsequent falls in older ED patients 

Method: This research was conducted as part of the Canadian Emergency Team Initiative in elderly (CETIe) multicenter prospective cohort study from 2011 to 2016. Participants: Patients 65 years or older were assessed and discharged from ED following a minor trauma. They had to be independent in all basic activities of daily living and being able to communicate in English or French. 

Measures: Primary outcome was RTED and secondary outcome was subsequent falls. Both were self-reported at 3 and 6 months. Patients were stratified according to risk of fear of falling and demographic characteristics. 

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Research Article: ED re-visit as the dependent variable, and an individual crowding metric along with a common list of confounders as independent variables. Adjusted odds ratios (OR) for the 72h return visits were obtained for each crowding metric. The strength of associations between 72h revisits and crowding metrics were compared using Akaike’s Information Criterion and Akaike weights. 

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Keywords: emergency department crowding

F011 Influence of fear of falling on return to emergency department and further falls in community-dwelling elderly presenting for minor trauma 

M. Lanoue, MDCM, M. Siros, PhD, A. Worster, MD, MDCM, MSc, J. Perry, MD, MSc, J. Lee, MD, MSc, R. Daoust, MD, MSc, S. Hegg, PhD, P. Carmichael, Biostatisticien, M. Émond, MD, MDCM, MSc, Laval, Quebec, QC

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Keywords: emergency department crowding