investigate the proportion of patients with acid-base outlier values in triage groups and investigate if patients could benefit from altered triage group allocation.

Method Patients admitted to the emergency department were allocated to green, yellow, orange and red triage groups based on vital signs. VBG samples were collected and converted to aVBG with v-TAC software. Using hierarchical clustering, patients with combined outlier values of pH, pCO₂ and bicarbonate, were identified in green, yellow and orange triage groups.

Results In this study 586 patients were included. In green, yellow and orange triage groups 26 of 222 (11.7%), 36 of 191 (18.8%) and 18 of 155 (11.6%) patients, respectively, were identified with combined pH, pCO₂ and bicarbonate outlier values, compared to the specific triage group norm. Although, congruency was observed between severity of acid-base conditions and triage score, some patients presented acid-base abnormality that required more expedient treatment than the allocated triage group suggested.

Conclusion Substantial proportions of patients with outlier values of pH, pCO₂ and bicarbonate was clearly identified using routine aVBG analysis. Some patients with severe acid-base conditions could benefit from altered triage group allocation.

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66 REGIONAL VARIATIONS IN AED DEPLOYMENT, ACCESSIBILITY AND EARLY DEFIBRILLATION: A NATIONWIDE STUDY

¹JS Kjøbye*, ^{1,2}L Karlsson, ¹FK Lippert, ^{1,3}CM Hansen, ¹L Andelius, ²S Møller, ⁴K Wodschow, ⁴AK Ersbøll, ⁵C Torp-Pedersen, ^{2,6}GH Gislason, ^{1,2}F Folke. ¹Emergency Medical Services Copenhagen, University of Copenhagen, Denmark; ²Department of Cardiology, Copenhagen University Hospital Gentofte, Hellerup, Denmark; ³Department of Cardiology, Nephrology, and Endocrinology, Nordsjællands Hospital Hillerød, University of Copenhagen, Denmark; ⁴National Institute of Public Health, University of Southern Denmark, Denmark; ⁵The Department of Health Science and Technology, Aalborg University, Aalborg, Denmark; ⁶The Danish Heart Foundation, Copenhagen, Denmark

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Aim Current resuscitation guidelines recommend early defibrillation by publicly accessible automated external defibrillators (AEDs). However, little is known on regional variations in AED deployment, 24/7 accessibility and bystander defibrillation on a nationwide level.

Method We identified all publicly available AEDs registered in the Danish AED network (2007–2016). AED density, type of location, 24/7 accessibility and bystander defibrillation were examined according to regional differences in Denmark.

Results Of 17,106 AEDs registered nationwide (=297.7 AEDs/100,000 inhabitants), the largest quantity and density of AEDs were in The Capital Region (n=5,120, 29.9%), 110.8 AEDs/100,000 inhabitants/1000 km², followed by Southern Denmark (n=4,082, 23.9%), 27.4 AEDs/100,000 inhabitants/1000 km²,

Central Jutland (n=3,644, 21.3%), 21.5 AEDs/100,000 inhabitants/1000 km², Zealand (n=2,269, 13.3%), 37.8 AEDs/100,000 inhabitants/1000 km² and Northern Jutland (n=1,991, 11.6%), 43.0 AEDs/100,000 inhabitants/1000 km². Northern Jutland had the highest proportion of 24/7 AED accessibility (50.2%), followed by Southern Denmark (47.5%), Zealand (44.5%), Central Jutland (41.0%) and The Capital Region (29.1%). The corresponding public defibrillation rates were 12.5%, 23.5%, 9.7%, 13.5% and 11.8%, respectively. ‘Companies/offices’ were the most frequent location for AED placement in all five regions, however, with a low 24/7 accessibility ranging from 11.4% to 31.3%.

Conclusion In Denmark, we found a marked difference in regional AED density ranging from 21.5 to 110.8 AEDs/100,000 inhabitants/1000 km², as well as 24/7 accessibility ranging from 29.1% to 50.2%. The most frequent location of AED placement for all regions was ‘Companies/offices’, which generally had low 24/7 accessibility. Finally, public OHCA defibrillation rates ranged from 9.7% to 23.5%.

Conflict of interest None

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SELF-RATED WORRY PREDICTS HOSPITALISATION IN OUT-OF-HOURS SERVICES TELEPHONE TRIAGE

¹H Gamst-Jensen*, ²E Frisknecht, ¹F Lippert, ¹F Folke, ³I Egerod, ⁴L Huijbers, ⁵M Brabrand, ⁶J Tolstrup, ⁶L Thygesen. ¹Emergency Medical Services Copenhagen, University of Copenhagen, Denmark; ²Center for Prehospital and Emergency Research, University of Aalborg, Denmark; ³Rigshospitalet, University of Copenhagen; ⁴Research Unit for General Practice, Department of Public Health, University of Aarhus, Denmark; ⁵Department of Emergency Medicine, Odense University Hospital, University of Southern Denmark; ⁶National Institute of Public Health, University of Southern Denmark

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Aim Telephone-triage poses a challenge in estimating urgency and determining the best response in acute health care. Lack of visual cues, vague symptom description, interpretation of symptoms, and spoken word contribute to the complexity.¹ The aim of the study was to include information that would enrich the telephone-triage with a measure of the callers’ subjective feeling of urgency defined as ‘degree-of worry’ (DOW). We tested the hypothesis that high DOW would be associated with hospitalisation within 48 hours.

Method A prospective cohort study was performed between 24.01–9.02 2017. Callers rated their DOW on a 1–5 scale (1=minimum worry, 5=maximum worry) before transferred to a call-handler. Length of hospital stay was obtained from National Patient Register. The association between DOW and hospitalisation was assessed using logistic regression.

Results Of 11 413 calls to the helpline, 581 individuals (5.1%) were hospitalised. Most of the hospitalised individuals (n=374, 64.4%) presented a high DOW (DOW 4–5). A high DOW had an odds ratio for being hospitalised of 5.38 (95% CI: 4.05 to 7.15) compared to those with a low DOW (DOW 1–2). Medium DOW (DOW 3) had intermediate odds ratio of 2.24 (95% CI 1.65 to 3.06). We observed this in all age groups, both genders, all levels of comorbidity, regardless if the caller was the patient or a close relative/friend.