Background: Early warning scores has been widely used as a triage tool but in some instances been limited in spotting critical ill patients. Reduced mobility has been associated with short-term mortality, increased length of hospital stays and has been suggested as an addition to early warning scores. Few studies investigated reliability of mobility scores. These have been in-hospital and based on specific patient types. Scoring of patient mobility in ambulances can be troublesome due to a hectic environment. There are no studies investigating inter-rater agreement of a mobility score applicable to a wide range of patients prehospital. The objectives of this study were to test inter-rater agreement between two ambulance clinicians using a mobility score for the same prehospital patient. Secondary to compare clinicians to observers and test if there is a difference in scores between regions.

Methods: A reliability study of a 4-category mobility score in the prehospital setting conducted on ambulance clinicians from the North- and Central Denmark Region and The Faroe Islands assessing patients. Data was collected between June 2020 to May 2021 and 251 ambulance patients' mobility scores were included. Data was evaluated by weighted kappa, Kruskall-Wallis and a post hoc Dunn test were used to examine differences in scoring between regions.

Results: Inter-rater agreement between ambulance clinicians showed a kappa 0.84 (CI95%: 0.79;0.88). This was supported with observers for North Denmark Region and Faroe Islands kappa 0.82 (CI95%: 0.77;0.86). Mobility scoring between ambulance clinicians in Central Denmark Region (n=93) and North Denmark Region (n=130) were not statistical different. The Faroe Islands (n=28) differed from the other regions (p<0.05).

Conclusion: These results indicate that the mobility score has a high level of inter-rater-reliability in a prehospital setting when used by ambulance clinicians. Comparing agreements between examined regions and ambulance providers show high inter-rater-reliability between clinicians. The mobility score may contribute to future studies investigating mobility as a predictor of patient's mortality. This could provide knowledge about how to improve patient triage and might be included as a vital sign.