

Chief Complaints and Survival of Heart Failure Patients at Critical Care Units

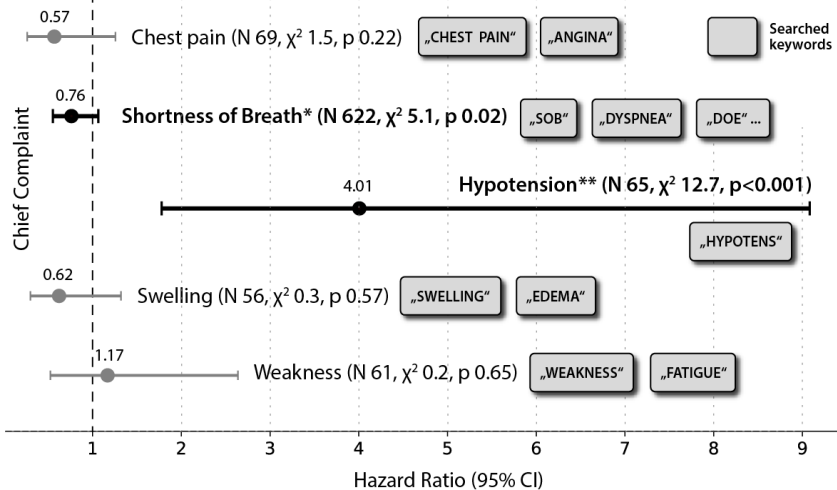
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Background and aims: The chief complaint (CC) is a short description of the main reason(s) why the patient seeks medical attention. Despite its subjective nature, we aimed to explore the effect of single CCs on patient survival in critical care units (CCU) in the case of heart failure patients.

Method: We prepared a dataset of 1,281 admission reports from 794 patients (median age 75 years, 49% females) originating in the MIMIC-III database at the PhysioNet server. The dataset contained 131 “expired” events (patients who died); the median duration of CCU stay was seven days. CCs were analyzed, and we defined ten groups/families of terms (roughly) close in meaning. Groups having more than 50 occurrences were further analyzed: using CCU hospitalization duration and discharge status, we built Kaplan-Meier plots for data dichotomized by the presence of specific keywords in CCs. The separating effect of each CC group was demonstrated by hazard ratio accompanied by p-value (Gehan-Breslow-Wilcoxon test) and χ^2 .



Results: Significant stratification by CC was found with shortness of breath (HR 0.76, 95%CI 0.54-1.10, p 0.02) and hypotension (HR 4.01, 95%CI 1.77-9.10, p<0.001). The influence of hypotension was higher than the influence of age over 74 years (HR 1.88, 95%CI 1.33-2.66, p<0.0001).