

air transfers were excluded. Area under receiver operating characteristic curve (AUROC) was assessed. Logistic regression with a restricted cubic spline function was used to assess the ability of four physiological variables: systolic blood pressure (BP), heart rate (HR), respiratory rate (RR) and Glasgow Coma Score (GCS) to predict adverse hospital outcomes.

**Results** Of the 1 79 374 patients, 2268 (1.3%) were subsequently admitted to ICU or died in the ED. AUROC was 0.829 (95% confidence interval 0.820–0.839). The GCS was the most important vital sign, and explained about 56% of the variability of the outcome compared to <11% by each of the other vital signs. A strong non-linearity between initial BP and adverse hospital outcomes was also observed but not with GCS, HR or RR.

**Conclusion** Initial prehospital vital signs, in particular GCS, may predict subsequent adverse hospital outcomes. Non-linear associations between initial physiological signs and subsequent outcomes should be considered in developing prehospital alert systems.

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## 15 THE IMPORTANCE OF STAYING ON THE CALL: RECOGNITION OF CARDIAC ARREST AFTER INITIAL DISPATCH

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**Aim** We compared survival in out-of-hospital cardiac arrest (OHCA) cases recognised at initial dispatch (“primary recognition”) with those subsequently recognised as OHCA (“secondary recognition”) and those not recognised as OHCA (“non-recognition”).

**Methods** We analysed cases of paramedic-confirmed OHCA in Perth, Western Australia (WA), from January 2014 to December 2015. We excluded traumatic OHCA, paramedic-witnessed arrests, and cases where paramedics did not attempt resuscitation. Emergency ambulance calls in WA are processed using the Medical Priority Dispatch System, via ProQA software. We analysed the ProQA data of each call for the presence of OHCA-specific dispatch codes (including code revisions) and call-taker instructions for cardiopulmonary resuscitation (CPR).

**Results** Among 1430 cases of OHCA, 84% (n=1195) were recognised by call-takers as OHCA. Of the 1195 recognised cases, 32% (n=386) were identified through secondary recognition. Survival to 30 days was significantly higher among cases with secondary recognition (13.2%) than among cases with primary recognition (7.9%) and non-recognised cases (7.7%) (p=0.008). More than half of all cases of secondary recognition were initially dispatched as Unconscious/Fainting patient.

**Conclusion** Nearly one third of call-taker recognition of OHCA occurs after initial dispatch. The higher survival probability of patients recognised by secondary recognition is consistent with those patients arresting more recently relative to the timing of the call. For many cases of OHCA, the call-taker's ability to stay on the call and remain alert to the possibility of OHCA may strengthen the chain of survival.

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## FEASIBILITY OF A PREHOSPITAL ACUTE DYSPNOEA SCORE – A PILOT STUDY

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**Aim** Dyspnoea is frequent symptom among patients in ambulances after calling the emergency number, and mortality is high (1). However, knowledge regarding patient experience is sparse. As a first step in assessing subjective intensity of acute dyspnoea, we performed a pilot study in a prehospital setting.

**Methods** A one-month pilot study in the Thy-Mors region of the North Denmark region. Emergency ambulance patients with difficulties breathing were asked to use a verbal rating scale to assess their dyspnoea at; 1) first arrival at patient, 2) approximately halfway to hospital, and 3) arrival at hospital.

**Results** We included twenty-one patients, 76% were able to use the scale. Five were unable: two due to severe difficulties breathing i.e. an urgent acute situation, one due to difficulties understanding the scale, and two with no reason noted. Arrival at patient scores (median 8, confidence interval 6–8)