There was no difference in survival at 30 days in patients with resuscitated cardiac arrest in the community who were taken by ambulance to a cardiac arrest centre compared with those delivered to the geographically closest emergency department.

Ambulances should take cardiac arrest victims to the closest emergency department.

The ARREST trial investigated whether expedited transfer of out-of-hospital cardiac arrest (OHCA) patients to a cardiac arrest centre reduces mortality compared with delivery to the closest emergency department.

Study objectives

- Patients: successfully resuscitated after an OHCA
- without ST-elevation on their post-resuscitation electrocardiogram (ECG)

Study population

- 862 patients
- Randomised 1:1
- Expedited delivery to a cardiac arrest centre
- Delivery to the nearest emergency department
- 7 cardiac arrest centres
- 32 emergency departments
- Both by the London Ambulance Service

Where?

- London, UK

Primary endpoint

- All-cause mortality at 30 days in the intention-to-treat population
  - Rate% 63%
  - Unadjusted risk ratio for survival 1.00
  - 95% CI 0.90 to 1.11, p=0.96
  - Risk difference 0.2%, 95% CI -6.5 to 6.8

Secondary endpoints

- 3-month all-cause mortality
  - Risk ratio 1.02; 95% CI 0.92 to 1.12
  - Risk difference 1.0%, 95% CI -5.6 to 7.5

- Neurological outcomes at hospital discharge and 3 months
  - Modified Rankin scale:
    - Odds ratio 1.00, 95% CI 0.76 to 1.32
    - Cerebral performance category (CPC) score:
      - 0.98, 95% CI 0.74 to 1.30