Incidence and outcome of in-hospital cardiac arrest in the United Kingdom National Cardiac Arrest Audit

Summary (by Dr Jerry Nolan, Chair of NCAA Steering Group)

One of the objectives of the National Cardiac Arrest Audit (NCAA) is to provide an accurate description of the current incidence and outcome from in-hospital cardiac arrest in the United Kingdom. To this end, we are absolutely delighted to report that the first paper from NCAA has been published (April 2014) in the international journal Resuscitation.1

Data used

The data came from 144 acute hospitals participating in NCAA and covered the period 1 April 2011 to 31 March 2013. Overall, 23,554 in-hospital cardiac arrests were reported for 22,628 patients (range 0 to 665 cardiac arrests for individual hospitals).

Key results

- The overall incidence of adult in-hospital cardiac arrest attended by the hospital-based resuscitation team was 1.6 per 1000 hospital admissions with a median across hospitals of 1.5 (interquartile range 1.2 to 2.2).
- Incidence varied seasonally, peaking in winter.
- Overall unadjusted survival to hospital discharge was 18.4%.
- The presenting rhythm was shockable (ventricular fibrillation or pulseless ventricular tachycardia) in 16.9% and non-shockable (asystole or pulseless electrical activity) in 72.3%; rates of survival to hospital discharge associated with these rhythms were 49.0% and 10.5%, respectively, but varied substantially across hospitals.

Risk adjustment

The data reported in this first paper are not risk adjusted but the same issue of Resuscitation includes a second paper from NCAA, which describes the development and validation of risk models that enable such risk adjustment to be applied.2 The methodology described in this paper is being applied to NCAA Reports provided to NCAA participating hospitals.

References