

Appendix 2 – The National Adult Cardiac Surgery Audit

1. Background

The National Adult Cardiac Surgery Audit (NACSA) collects consecutive operation data from all 35 NHS hospitals in the UK that carry out adult heart surgery. A number of Irish and UK private surgical units also submit data.

The project enables secure collection and analysis of cardiac surgery data, in addition to long-term mortality tracking for operative episodes from 1994. Participation in the audit is mandatory for relevant English and Welsh hospitals as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP).

For further details, see 'The Adult Cardiac Surgical Register. Bridgewater B; Society for Cardiothoracic Surgery in GB and Ireland. Heart. 2010 Sep;96(18):1441-3. Epub 2010 May 29.'

2. Dataset

The current SCTS dataset v4.12, available for download from the NICOR website, contains 168 fields that detail pre-operative patient characteristics, operative details and post operative outcomes . The dataset set is revised intermittently to meet the requirements of users and to respond to changes in the management of adult cardiac surgery. The most recent change was made in April 2011.

3. Data collection

Data are collected by surgeons and support workers on a variety of data collection systems. The dataset contains approximately 500,000 records.

4. Data quality

Data completeness of key fields is monitored continuously and publicly reported by hospital in the SCTS National Adult Cardiac Surgical Database Report (aka the 'Blue Book', available for download from www.scts.org) and the National Adult Cardiac Surgery Audit Annual report.

Local software systems and the central database for the audit incorporate validation, such as range and consistency checks to maintain data quality. Analysis of data is also fed back to individual units for validation on a regular basis.

5. Data applications to NACSA

For comprehensive information on the process for applying for access to National Adult Cardiac Surgery Audit (NACSA) data please see the 'NICOR data sharing policy' and the 'NICOR data application process'.

Applications for adult cardiac surgery data are approved by the NACSA research group, which meets on a quarterly basis, but will consider applications remotely at other times so as to streamline the process.

The charges for data and the level of oversight required by the research group will be judged on a case by case basis in consultation with the applicant(s). Whether cleaned or un-cleaned data is provided will depend upon the complexity of the fields requested. Where cleaned data is provided, the research team must sign a document stating that they have read and understood the cleaning codes used.

Researchers are advised to gain input from a statistician, and all projects must be overseen by a cardiac surgeon. Proposals that do not have surgeon involvement, if approved, will be assigned one by the research group.

All applicants are required to send a draft of their research paper to the NACSA research group for approval at least three weeks before it is submitted for publication.

All queries and data applications for NACSA data should be sent to the audit project manager by email to acs-nicor@ucl.ac.uk.