Cardiac surgical Database: Overview

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Abstract

Background. Majority of the active cardiac surgical centers in India are still collecting the patient related data in a free flow manner. If the same information is collected in a structured manner, it is helpful in improving quality care of the patient, Resident training, Medical audit, and generation of new knowledge. Structured information is essential to computerize the data which will be useful for rapid analysis and for quick comparisons with published data. This type of format is mandatory to merge individual institutional data with National and International cardiac surgical databases.

Methods. A new format has been designed to collect the patient related information based on diseases and procedures. Compatible software (Dusk Data) distributed to various cardiac surgical centers in India for data entry and analysis.

Results. Several Cardiac surgical centers are collecting the data in this format. 10 out of 40 cardiac surgical centers are collecting the data in this format.

Conclusions. This Paper describes customized data collection forms for CABG, Heart Valve diseases, and common Congenital Heart diseases wider participation is urged for a meaningful National Cardiothoracic surgical registry. (Ind J Thorac Cardiovasc Surg, 2001; 17: 155-219)

Key words. Cardiac surgery, National Database, Coronary artery diseases, Valvular heart disease, Congenital heart disease.

Introduction

At present in USA(STS database) and in Europe(ECSUR) National Cardiothoracic Surgical registers are fully operational with participation of good number of cardiac centers voluntarily. Where as in India we have yet to start a National level cardiac surgical registry. Gathering the patient related data in a structured format by various centers voluntarily forms the first step in the direction of National cardiac surgical registry.

In Computer language any information, if it is gathered in a structured manner is called Database.

Structured format has been designed for Coronary By Pass Surgery (CABG), Heart Valve diseases, and Common congenital heart diseases. The same format is useful for data entry into the soft wear package for cardiac diseases. (DUSK DATA).

The collection of patient related clinical information, patient by patient in a computerized soft wear package helps in rapid analysis of the data at institutional, National or even at international levels. The format has been designed with a view to improve Resident Training, Surgical Audit, and Generation of knew knowledge.

Materials Methods

Data collection format has been divided into 10 Stand alone Modules.
1) General Details
2) Medical History
3) Clinical details
4) Angiography and Cath details
5) Investigations
6) Anesthesia details
7) Surgical details
8) CPB details
9) Post Op details
10) Follow Up details.
Some of the modules like General details, Medical History, Angiodetails, Anesthesia details, Investigations, CPB details, PO details are common for all the diseases. The other Modules like Clinical details, Surgical details, Follow up details are all disease specific.

CABG data and Heart valve data consists of two different formats. These were published earlier in Indian Journal of Thoracic and cardiovascular surgery. 1,2

1) Rapid CABG data, Rapid Heart valve data
2) Detailed CABG data and Detailed Heart valve data.

Rapid data format consists less number of fields compared to detailed data or comprehensive data format. Whereas congenital heart diseases data, is disease specific and has only one format.