

**The Society of Thoracic Surgeons
Data Managers' Electronic Abstract Submission Form**

(Electronic Deadline: August 15, 2003, Midnight CDT)

ID# __04_____ (for internal STS use only)

1. **Authors' Information:** Please provide full name and title for each participating author.

Corresponding Author's Name: Karen Hardy

Author's Title: RHIA

E-mail address: khardy@alegent.org

Telephone #:

Fax #:

Senior Author's Name: Thomas J. Langdon

Author's Title: M.D.

Author's Name: Julie Sundermann,

Author's Title: APRN-BC

Author's Name: _____

Author's Title: _____

Author's Name: _____

Author's Title: _____

For additional authors please submit a second form.

2. **Institution(s) Information:** Please provide name of Institution(s).

Institution Name: Alegent Health - Immanuel Medical Center

City and State of Institution: Omaha, NE

Institution Name: _____

City and State of Institution: _____

Institution Name: _____

City and State of Institution: _____

For additional institutions please submit a second form.

3. **Title of Abstract:**

Title: Provide the title of the abstract. Please provide a short and specific title which indicates the nature of the study. Please use the following formatting guidelines; title case, no periods, no abbreviations. Example: This is a Properly Formatted Title

Increased Off-Pump Coronary Artery Bypass Grafting Surgeries Have Reduced The Postoperative Cerebrovascular Accident Rate In Isolated Coronary Artery Bypass Patients

4. Abstracts are limited to 250 words and must be typed and electronically submitted. The 250 limit does not include the title of the abstract or the author(s) name or title(s).

I. **Background:** A brief statement of the purpose of the study and the current state of research in the field.

Many evidence-based studies published over the past five years suggest that off pump coronary bypass grafting surgery minimizes postoperative complications: cerebrovascular accidents (CVA), atrial fibrillation, infection and renal failure. Less postoperative complications and decreased length of stay contribute to less financial burden for patients and hospital facilities. This study focuses on one postoperative complication: the incidence of postoperative CVA's in the off-pump coronary artery bypass patient population.

II. **Methods or Study Population:** The methods of study or experimental approach clearly, but briefly, defined.

Our investigation analyzes the incidence of new onset, postoperative CVA's following off-pump coronary artery bypass grafting. Between January, 1997 and June, 2003 Immanuel Medical Center performed 1,622 isolated coronary artery bypass grafting procedures. Of these 892 have been performed off-pump. The data for this study was collected by one investigator concurrently, utilizing the Society of Thoracic Surgeon (STS) Database definitions and a STS approved database vendor.

III. **Results:** A summary of the results of the study, including sufficient details to support the conclusions made. To summarize results you may include one table (not to exceed 10 columns, 10 rows), or one graph, or one illustration (jpg file not to exceed 4" x 3" at 300 dpi).

Each year the percentage of patients suffering postoperative CVA's were identified. For the same year the percentage of isolated coronary bypass grafts performed both on-pump and off-pump were also identified. Six years of data strongly demonstrates decreased postoperative CVA's in off-pump coronary artery bypass procedures as compared with those procedures performed on-pump. A statistically significant value ($p < 0.011$) was observed when comparing the 1997 patient population to the 2001 patient population. The patient populations for 2002 and the first six months of 2003 are not statistically significant but still reflect an overall decrease in this complication. This could be explained by a high risk-adjusted patient population based upon our STS risk-adjusted mortality rates. Immanuel Medical Center's off-pump patient volumes have increased from 3.7% in 1997 to 93.3% in 2003. The incidence of postoperative CVA's have decreased from 4.4% in 1997 to 0.4% in 2001. See attached powerpoint slide.

IV. **Conclusion:** A statement concerning the significance of the work and its implications for further research.

Tracking the incidence of postoperative CVA's is one way to measure the quality outcomes of a cardiovascular surgical program and serves as a mechanism for evaluating opportunities for improvement. For Immanuel Medical Center's cardiac program, data on postoperative CVA's provides objective support for the education of physicians, staff, patient's and families on the preference of off-pump coronary artery bypass grafting compared to on-pump coronary artery bypass grafting.

Post-Operative CVA - Permanent - Immanuel Isolated CAB-Only 1996 to June 2003

