

**California CABG Outcomes Reporting Program (CCORP)
Clinical Advisory Panel Subcommittee
Minutes of May 1, 2012**

The meeting was held at OSHPD Headquarters, 400 R Street, Sacramento, California

Clinical Advisory Panel Members in attendance:

Robert Brook, M.D., Sc.D, Chair	James MacMillan, M.D.
Ralph Brindis, M.D., FACC	Andrew Bindman, M.D

Clinical Advisory Panel Members absent:

Timothy Denton, M.D. FACC	James MacMillan, M.D
Cheryl Damberg, Ph.D.	Coyness Ennix, Jr., M.D.
Frederick Grover, M.D.	

OSHPD Staff/Consultants in attendance:

Stephanie Clendenin, Acting Director, OSHPD	Ron Spingarn, Deputy Director, OSHPD Healthcare Information Division
Joseph Parker, Ph.D., Healthcare Outcomes Center (HOC) Manager	Holly Hoegh, Ph.D., HOC
Mary Moseley, M.A., HOC	Gail Sondermeyer, MPH, HOC, Cal EIS Fellow
Robert Springborn, Ph.D., HOC	Beate Danielsen, Ph.D., UCD Contractor
Niya Fong, HOC	Jaspreet Samra, HOC, Cal EIS Fellow
Denise O'Neill, CCORP Data Mngr.	Ying Yang, HOC
Beth Herse, OSHPD Sr. Legal Counsel	Limin Wang, HOC
Zhongmin Li, Ph.D., UCD Contractor	Merry Holliday-Hanson, Ph.D., HOC
	Dominique Ritley, MPH, UCD Contractor
Patrick Romano, M.D., UCD Contractor	Ed Mendoza, OSHPD Healthcare Information Resource Center
Geeta Mahendra, M.S., UCD Contractor	

Presenter and staff, UCD Consultants to CDPH: William Bommer, M.D., Melanie Aryana, and Patricia Li

1. Call to Order and Introductions

Robert Brook, M.D., Chairperson, called the meeting to order at 9:34 a.m. Introductions were made. The panel never acquired a quorum during the meeting; therefore, the group met as a subcommittee of the full panel.

2. Approval of Minutes of May 24, 2011 Meeting

Approval of minutes was deferred until a quorum could be present.

3. Director's Report – Stephanie Clendenin, Acting Director

Ms. Clendenin reported that the Governor has selected a new director for OSHPD, Robert David. Mr. David previously worked for OSHPD as Chief Deputy Director. He shall commence work May 7.

With the previous year's budget, OSHPD's California Health Policy Data Advisory Commission and its Technical Advisory Committee were eliminated. The Healthcare Information Division is working on outreach strategies to replace some of the work of these two groups.

The Workforce Division continues to grow with Affordable Care Act requirements and absorption of workforce programs resulting from realignment of the Dept. of Mental Health.

4. CCORP Program Update – Holly Hoegh, Ph.D.

Dr. Hoegh reviewed the statutory role of the CAP: recommend data elements, review and approve risk adjustment models, review physician statements, and consult with OSHPD on report materials. This meeting will cover review and approval of risk models and consultation regarding report materials.

She presented several graphs including volume of isolated CABG, non-isolated CABG and PCI Surgery in CA with new valve-only information; in-hospital mortality for CABG and PCI; hospital volume statistics over time; isolated CABG volume over time for states that provide public reporting; and observed isolated CABG inpatient mortality rates in CA and other states over time.

The 2009 public report was released April 24, 2012. Issues related to 2010 data will be discussed today. Future projects include comparing hospital outcomes using STS operative mortality and 30-day mortality, developing risk models for other complications, and continuing development of the methodology for CABG+Valve risk adjustment.

Discussion: The panel discussed CABG and PCI. Panel members noted that patient mix in PCI is greater than CABG and volume is increasing. It was noted that the mortality rate can be deceiving to the consumer and even some physicians and that neither STS nor NCDR databases do well comparing CABG to PCI. The panel discussed that the decision should be based on a specific patient's needs. It was noted that the practice of medicine may move to a more multidisciplinary approach where the patient participates in the process along with specialists. Primary prevention, like use of statins and reduced tobacco use, has played a large part in the reduced mortality that we currently observe.

5. Results of the 2010 CCORP Audit – Beate Danielsen, Ph.D., UCD consultant to OSHPD.

Dr. Danielsen explained the goals of the audit are to help assure that under-coding or over-coding of risk factors does not lead to hospital or surgeon outlier status, and to verify data quality in hospitals that had poor response to data discrepancy and risk factor coding reports.

The audit sample was taken from the 16,353 CABG surgeries for 120 hospitals and 258 surgeons. Hospitals were selected according to mortality or stroke outlier or near-outlier status for hospital or surgeon, coding problems, or hospitals which had never been audited. In all, 37 hospitals were audited. For surgeons, cases were selected at each hospital proportional to isolated CABG volume -- a minimum of 50 and maximum 80 isolated CABG cases and up to 10% non-isolated CABG. For hospitals, selection was proportional to isolated CABG volume – minimum of 60 and maximum of 140 isolated CABG cases and up to 10% of non-isolated CABG. Primary case selection included all in-hospital deaths following CABG surgery, all post-operative strokes, and remaining patients proportional to predicted risk of death or post-operative stroke. A set of secondary records were selected for use should primary cases be found non-isolated by the auditors or a primary case could not be located. In all, 2,396 isolated and 200 non-isolated CABG surgeries were audited.

In the audit findings, 12 reported isolated CABG surgeries were found to be non-isolated and 9 non-isolated CABG were considered isolated. Seven CABG surgeries were found to be not CABG at all. Disposition at discharge was always coded correctly. Missing values were rare. Some data elements, such as atrial fibrillation, were often inaccurately coded. Dr. Danielsen presented charts showing audit findings of complication reporting and pre-audit vs. post-audit conclusions. Mitral insufficiency and chronic lung disease continued to be the most problematic variables. Similar to prior years, status of procedure coding was moderately problematic. Post-op stroke, prolonged ventilation, and reoperation for bleeding were captured well; however, reoperation graft/occlusion and post-operative infection were poorly captured in submitted data. Atrial fib, although poorly coded, did improve compared to previous years. Operative success was captured well.

The pre-audit data indicated one hospital *Better* for post-op stroke which changed to an *Average*. For surgeons, two *Worse* became *Average*, and one *Average* became *Worse*.

Discussion: CCORP staff and consultants were asked if there is a way to improve the mortality rate. Dr. Li stated that we have a higher rate than many other states. Dr. Parker stated that he has held conference calls with the lower performing hospitals. These hospitals had problems with selected data elements due to ambiguous definitions or clinical situations that are vague. Interventionalists tend to over report risk, while coders tend to under adjust because they may not see all the needed clinical information.

6. Overview of the California Department of Public Health's mandated PCI California Audit Monitored Pilot with Offsite Surgery (CAMPOS) Project – William Bommer, M.D., UCD consultant to CDPH.

The CAMPOS Project addresses the question, “Do we still need to do all PCI’s at hospitals which have surgery on-site?” When angioplasty began 30 years ago, 10% of patients had to go from the intervention lab directly to surgery, thus onsite surgical backup was required. Today, 0.3% of patients need immediate surgery. Like other national data collection programs, California decided to create an audit monitored pilot project to test safety of off-site PCI’s.

Six pilot hospitals were enrolled in the CAMPOS Project and about 100 patients monthly. Most patients have stable angina or NSTEMI but some have STEMI’s or unstable angina. During the first 18 months of the project, there were 1,800 patients with an in-hospital mortality of 2.2%.

PCI data is collected and submitted via website data entry within 72 hours of a procedure. The data is checked for completeness, internal consistency, and NCDR definitions compliance. A physician reviews all the cases. Twenty percent of cases also have an on-site audit. In the angiographic audit, lesion complexity is a frequent area of disagreement.

Dr. Bommer presented comparison charts between PDD non-pilot hospitals and PCI CAMPOS. These included charts regarding patient mix, hospital observed mortality by MI Type PCI, and hospital observed mortality for STEMI excluded. The project uses a composite outcome measure for risk adjustment consisting of in-hospital death and transfer for emergent CABG. Dr. Bommer then presented risk factor prevalence for the composite event; multivariable logistic regression models; risk-adjusted PCI composite event by operator and STEMI excluded; and composite event to volume correlation.

For PCI-CAMPOS vs. PDD non-pilot, they have found no significant differences for PCI volume and observed mortality. For PCI-CAMPOS risk adjusted composite event, they have found no significant outlier hospitals for overall PCI composite event, one worse outlier hospital for STEMI excluded PCI composite event, and no outlier operator for overall or STEMI excluded PCI composite events. Quality metrics and on-site audit outcomes were reviewed.

Discussion: Panel members discussed how this project relates to the future of PCI in California without reaching specific conclusions. They discussed that a small number of patients would die without on-site surgical backup or the equivalent; six low volume hospitals and restricted case selection represent a small portion of the total state PCI activity; this project has created a process for collecting and monitoring PCI’s at low volume hospitals without on-site surgical backup; and California does 4 times more PCI’s than CABG surgeries, so PCI’s should be prioritized for public reporting.

7. Presentation of the Preliminary Findings of an Analysis of the Impact of Public Reporting of Internal Mammary Artery Utilization – Gail Sodermeier, MPH, CalEIS Fellow for OSHPD Healthcare Outcomes Program.

Ms. Sodermeier stated that California is the only state that publicly reports IMA usage. She noted that Dr. Zhongmin Li presented information at an earlier CAP meeting regarding IMA usage over time in California. Ms. Sodermeier's study compares California to the rest of the United States, while Dr. Li's study used CCORP clinical data. Since no national clinical datasets are collected or available, this study uses administrative data from the HCUP Nationwide In-Patient Sample. A 20% sample of the nation, minus California, amounted to more than twice the number of California cases. There was some improvement over time but not a significant difference between California and the nation. Then, comparing age and sex, there was noticeable improvement in IMA usage for women and people over 80 years, with similar improvements in California and nationwide.

Discussion: Panel members discussed the history of IMA reporting in California. Initially, there were a few poorer performing hospitals and surgeons. The fact of public reporting helped drive education and change among the IMA usage holdouts and raised their level of performance. Some members said that a more detailed study of the time period when public reporting was announced and implemented would show a significant improvement made by the CAP recommendation for IMA public reporting. All in all, members wanted to see the completed study published. Dr. Parker stated that CCORP could do an analysis of age and sex with the CA outliers in IMA usage at the turning point.

8. Mortality as a risk-adjusted outcome for CABG Surgery – Zhongmin Li, Ph.D., UCD consultant to OSHPD

Dr. Li presented the risk model and methods for developing the outcome measure.

Action: The subcommittee voted to recommend this risk model to the full panel.

9. Post-operative inpatient stroke as a risk-adjusted outcome for isolated CABG Surgery– Zhongmin Li, Ph.D.

Dr. Li presented the risk model and methods for developing the outcome measure.

Action: The subcommittee voted to recommend this risk model to the full panel.

10. Hospital readmission as a risk-adjusted outcome for isolated CABG Surgery – Zhongmin Li, Ph.D.

Dr. Li presented the risk model and methods for developing the outcome measure.

Action: The subcommittee voted to recommend this risk model to the full panel.

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Discussion: There was discussion, questions, and answers during the recommendations of risk models presented by Dr. Li. Why do we risk-adjust every year? Are we introducing noise when we are trying to achieve accuracy?

Staff responded that there is need for new models every year because the data elements and definitions change and hospitals expect a risk model to be adjusted for changes in data rather than isolated from data changes.

The panel discussed the issue of sex differences, most notable that more women die than men, perhaps because of small or more reactive vessels, but the answer isn't clear. Ideally, the group would like to see a report that would help a consumer and physician choose the best outcome for the patient. This may be approached with a composite measure, which the panel rejected in favor of individual measures a few years ago. The current trend is towards composite measures imbedded with risk-adjustment to specific outcomes.

The panel discussed the causes for readmissions: surgical complications and medical quality of care. The latter is the hospital's responsibility. The panel discussed whether or not to remove chronic conditions from the risk model. Higher acuity patients are not the higher risk patient for readmission. The panel questioned the role of family support and patient responsibility. Dr. Parker stated that CCORP could try separating surgical complications from processes of care and also look at comparing hospitals over a number of years.

11. Upcoming CCORP Hospital-Level Report – Holly Hoegh, Ph.D.

D. Hoegh presented OSHPD's recommendations on 2010 contents. The report would include 2010 risk-adjusted isolated CABG mortality rates for hospitals, 2009-10 risk-adjusted isolated CABG mortality rates for surgeons, 2009-10 risk-adjusted CABG post-operative inpatient stroke rates for hospitals, 2010 risk-adjusted isolated CABG readmission rates by hospital, and 2010 internal mammary artery usage rates by hospital.

Discussion: The panel informally agreed with OSHPD's recommendations for the report. Performance of hospitals and surgeons over time was discussed. The future of CABG reporting was discussed and the suggestion made to list this as an agenda item in the future.

12. Definition of Isolated CABG

Did not discuss.

13. Public Comment

There was no public comment. The meeting was adjourned at 1:40 p.m.