

July 9, 2010

Joseph Martin
Executive Director
Pennsylvania Health Care Cost Containment Council
225 Market St., Suite 400
Harrisburg, PA 17101

Dear Mr. Martin:

On behalf of Pennsylvania Hospital, we would like to thank you for the opportunity to comment on the Cardiac Surgery 2007-2008 Report. We appreciate the time and effort involved in reporting information related to cost and outcomes of healthcare in Pennsylvania. After careful review of the report, we would like to provide these additional observations.

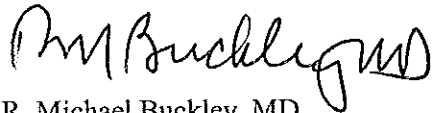
The patients who had heart valve repair and replacements in cardiac surgery program at Pennsylvania Hospital included patients with complex medical conditions. Specifically, one patient had gastric and esophageal varices, thrombocytopenia, and cirrhosis of the liver. Another had leukemia and coagulation abnormalities. A third underwent double valve repair/replacement as well as a full Cox Maze III procedure. The risk algorithm employed by PHC4 does not make an adjustment for multiple valve replacement procedures. These procedures are well known to carry higher risk than isolated valve replacement procedures but there is no risk adjustment made for these complex procedures in the algorithm used to assess risk. Thus, an isolated aortic valve replacement is considered to have equal risk to a triple valve replacement including aortic, mitral and tricuspid valves. It is not reasonable to consider procedures of such disparate complexity to have equivalent mortality risk. Another patient was nearly 90 years of age and clearly the risk of cardiac surgery increases as a continuous function of age. Although the risk algorithm takes age into account, it does not do so in a continuous fashion and thus underestimates risk for the oldest patients operated upon. Other patients included had conditions such as chronic kidney disease, diabetes, congestive heart failure, chronic airway obstruction, atrial fibrillation, and essential hypertension.

One critical issue that directly affects Pennsylvania Hospital is our bloodless cardiac surgery program. We receive referrals of patients from all over the country, most of whom come from our region who require complex cardiac surgery but who have a religion-based refusal to accept blood or blood product transfusions. Nearly all of these patients have been turned down by other cardiac surgeons and cardiac surgery programs because they are perceived to have a prohibitively high risk for cardiac surgery. In spite of the generally perceived high risk of these transfusion-free cases, we have had overall excellent results with these patients. At Pennsylvania Hospital using a transfusion-free approach, we have successfully performed reoperations in patients with patent internal mammary arteries, Type A aortic dissections and reoperative complex aortic root

replacements and aortic aneurysm surgery, including combined aortic aneurysm/mitral valve repair, combined coronary artery bypass/valve procedures, resection of cardiac tumors and adult congenital cardiac surgical procedures including septal defects and correction of anomalous pulmonary venous drainage. Although it is the consensus of expert opinion that the risk of performing these procedures without access to blood or blood product transfusions is higher than it would be without restricted access to transfusions, there is insufficient data to quantitatively account for this increased risk. Given the absence of data to allow for an appropriate statistical risk-adjustment for these patients, they should be excluded from the analysis, particularly for referral centers (like Pennsylvania Hospital) since they represent a large fraction of our overall patient population. Alternatively, these patients should be excluded when an analysis of their specific clinical course indicates that blood or blood product transfusion – if available – would have potentially been life-saving. Without a means for adjusting risk, the only statistically valid way to approach this problem is to exclude such patients from the analysis. Had we been able to exclude these patients from the PHC4 analysis our valve-related operative mortality would have been within the accepted range. We would strongly encourage PHC4 in the future, to exclude such patients from this analysis until an appropriate risk-adjustment can be made. Otherwise, these bloodless (transfusion-free) cardiac surgery patients will find it increasingly difficult to find highly skilled surgeons who will offer them potentially life saving surgical procedures in the future.

We continuously review the quality of patient care at Pennsylvania Hospital for improvement opportunities. Thank you for the inclusion of this information with the published report.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Michael Buckley, MD". The signature is fluid and cursive, with the letters "R", "M", and "B" being particularly prominent.

R. Michael Buckley, MD
Chief Medical Officer