Lehigh Valley Physician Group
LEHIGH VALLEY HEALTH NETWORK

LVPG CARDIAC AND THORACIC SURGERY
Formerly Lehigh Valley Heart & Lung Surgeons
1250 S. Cedar Crest Blvd.
Suite 310
Allentown, PA 18103
phone: 610-402-6890
fax: 610-402-6892

2649 Schoenersville Rd.
Suite 104
Bethlehem, PA 18017
phone: 484-884-1011
fax: 484-884-1012

Vincent E. Lotano, MD
Sanjay M. Mehta, MD
Timothy S. Misselbeck, MD
Theodore G. Phillips, MD
Raymond L. Singer, MD
Erik A. Sylvin, MD
James K. Wu, MD

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Joe Martin, Executive Director
Pennsylvania Health Care Cost Containment Council
225 Market Street, Suite 400
Harrisburg, Pennsylvania 17101

Dear Mr. Martin,

I wish to thank you and the other members of your executive team for our phone conference meeting to discuss my observations and concerns regarding the current cardiac surgery report. I appreciate the time that you and the statisticians took to explain the analysis and conclusions.

I do feel that our discussions are worthy of comment on the PHC4 web site. Specifically, as you know, I was surprised and disappointed to see that the current report determined a "not significantly different than expected" outcome, despite my having a 0% mortality for 246 valve cases reviewed. There were an additional 41 cases excluded as "clinically complex" for which there was also a 0% mortality. This was particularly surprising to me, since I had received a "significantly lower than expected" mortality rating for "total valves" in the previous report, despite the same 0% mortality in a smaller cohort of patients studied.

As you pointed out during our discussions, a review of the statewide PHC4 data from 2005 to 2016 shows a decrease in valve surgery mortality rate from 4.9% to 2.7% in Pennsylvania; and, during that same period, the data shows my personal valve surgery mortality rate decreased from 1.4% to 0.0%. However, because my expected mortality also decreased from {1.4-6.5%} to {0.0-2.4%}, I went from "significantly lower than expected" for mortality, to "not significantly different than expected" –despite my maintaining a 0% mortality rate for 4 consecutive years.

Of course, from a surgeon's standpoint it is difficult to accept how any open-heart surgery can have an expected mortality of 0%, especially when performing a high volume of cases, such as the 246 valve surgeries performed by me in this report. Moreover, the 0% lower range of expected would seem to challenge the risk model results published by the Society of Thoracic Surgeons database. No doubt, most surgeons in Pennsylvania would share my concerns.

The answer apparently lies in PHC4's "in-hospital mortality risk model" and, conversely, the degree of proper documentation of these risks in the medical records by the surgical teams, as well as the variability of coding and abstraction of the data by the individual institutions.

To that point, you provided me a review of my in-hospital mortality risk variables that led to PHC4's deduction that my expected lower range for mortality was as low as 0%. While I remain concerned about the assessment of risk, I respect your analysis and I appreciate the time that you provided me to help understand your process and conclusions. I also appreciate that you understood my concerns and, in return, I hope that there were learnings on both sides.

I am pleased to see that because of our discussions, you have reformatted the publication to include the actual mortality rates. I feel that this increased transparency will help the public in their assessment of the report and provide patients with more insight into the data, particularly when researching high volume surgeons and centers with low mortality rates. I am also pleased to learn that you and your team are considering utilizing the Society of Thoracic Surgeons database risk models in future PHC4 cardiac surgery reports.

The most important conclusion that I know you and I share, is the fact that public reporting improves surgical outcomes. In 1989, PHC4 became the first state agency to issue a hospital report card, the *Hospital Effectiveness Report*. In 1992, PHC4 issued one of the nation's first physician specific report, the *Pennsylvania Guide to Coronary Artery Bypass Graft Surgery*. As I mentioned above, over many years of public reporting, we have seen a decline in the mortality rates for a wide range of surgical procedures and diagnoses in Pennsylvania. The work of PHC4 in promoting healthcare transparency has played a major role. As such, I have been –and will remain—a strong advocate for PHC4, and public reporting in general.

No doubt, challenges remain. No report is perfect. No amount of documentation and risk stratification will ever tell the entire story. And yet, measuring and reporting surgical outcomes is paramount to improving care, even if raises more questions, more thought, and more discussions. Indeed, only working together –physicians, hospitals, insurers, medical societies, and state agencies—will we achieve greater outcomes and safety for our patients and our communities.

Thank you again for your time and consideration.

Sincerely,

Raymond L. Singer, MD, MMM, CPE, FACS, FACC, FCCP
Clinical Professor of Surgery – USF Morsani College of Medicine
Chief, Division of Cardiothoracic Surgery
Surgical Director, Charles C. Chrin Heart and Vascular Center
Vice Chair, Quality and Patient Safety
Department of Surgery
Lehigh Valley Health Network