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Reference

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In Reply:—Drs. Litwak and DeGrutolla appropriately advocate the use of more sophisticated statistical modeling techniques for developing and interpreting risk profiles in patients undergoing surgery. Clearly, surgical patients are not only older and more sick, but also have a broad array of acute and chronic diseases. Therefore, no universal paradigm can be created for perioperative care, and only through risk stratification can appropriate and cost-effective paradigms be tailored to individual patients. Therefore, our energy should be focused on developing greater sophistication in our approaches, as recommended by Drs. Litwak and DeGrutolla.

Another issue addresses the characterization of the heart rate response and the association with adverse outcome. We now understand that elevations in heart rate occur commonly with emergence from anesthesia and throughout the first postoperative week, even when pain responses have been controlled. Such elevations in heart rate not only affect patients with fixed coronary artery stenosis, but also those with unstable plaque and endothelial dysfunction *vis a vis* plaque alteration by increased sheer stress. We also have appreciated that such alterations manifest not only acutely after surgery, but also during the weeks to months after hospital discharge. As suggested by Drs. Litwak and DeGrutolla, more comprehensive characterization of the heart rate response may lead to greater insight into this pivotal association with adverse outcome, thereby facilitating a more rational design of in-hospital and long-term therapeutic paradigms. Although the recent findings show that perioperative β blockade improves long-term survival are noteworthy, this approach is only the first step in the development of a comprehensive paradigm. We need to look no further than the experiences derived from clinical trials in ambulatory patients with cardiovascular disease. Only by intelligent stratification can the appropriate therapies be determined for an individual surgical patient, in whom excitotoxic and inflammatory responses are added to the inherent pathology of the chronic disease state.

Therefore, the questions raised by Drs. Litwak and DeGrutolla clearly are important because they emphasize the complexity of the perioperative pathophysiologic derangements and the implications regarding postdischarge adverse outcome.

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Obstetric Anesthesia 1988–1996 in Northrhine/Germany: Results of the Perinatal Survey at the Chambers of Physicians

To the Editor:—Dr. Hawkins and colleagues[1] have to be congratulated on their task. To provide comparative information for Germany, we used the data contained in the Rhineland Perinatal Survey at the Chamber of Physicians of Northrhine/Germany (Rheinische Perinatal-Erhebung bei der Ärztekammer Nordrhein/RPE). Our goal was to evaluate the distribution of births among hospitals of different sizes and to define the use of regional and general anesthesia.[2]

Note that it is mandatory to report perinatal data to the Perinatal Survey at the Chamber of Physicians of Northrhine. The collected data regarding number of births were compared with the data supplied by the State Office of Statistics. This verified the completeness of the data (99.3%).

The survey monitored 890,422 births between 1988 and 1996.

Of these, 654,308 were spontaneous deliveries. The number of all labor epidurals increased from 22,355 (24.3%) in 1988 to 24,095 (24.4%) in 1996.

In 1988, 15,038 patients underwent cesarean sections. In 1996, the number had risen to 19,767 patients, which constitutes 20.1% of all deliveries. This is an increase of 4,729 deliveries or 3.7%. The increase