Figure 1. Pledgeted 2-0 polypropylene transmurals are passed from outside through the right ventricular free wall and septum, beneath the course of the left anterior descending coronary artery and well posterior to the septal rupture; the remaining stitches are passed in a similar fashion through the left ventricular free wall (*left*). Sutures are then tied on the patch, and the ventriculotomy is closed. The 4-chamber cross-sectional diagram schematically shows juxtaposition of the distal right ventricular free wall over the septal defect (*right*). LAD, Left anterior descending; RV, right ventricular; LV, left ventricular.

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Adverse events in reoperative cardiac surgery: Delineating the typical intraoperative approach To the Editor:

I read with great interest the recent article by Roselli and colleagues¹ detailing their review of adverse events during reoperative cardiac surgery. The authors have clearly demonstrated that these adverse events are significantly associated with lapses in preventive strategy and with failure to rescue. As a cardiothoracic anesthesiologist, I am interested in the details of the typical intraoperative setup during the study period (July 2002 to January 2006). I have the following questions:

1. Was blood routinely available in the operating room before incision? If so, how many units?
2. Were external defibrillation pads routinely applied to the chest wall to permit emergency defibrillation as required during sternal entry and/or mediastinal dissection?
3. Was large-bore intravenous access routinely achieved before skin incision?
4. Was a femoral arterial line frequently placed before sternal incision to ex-

pedite femoral arterial cannulation for rescue cardiopulmonary bypass?

I congratulate the authors again on their important contribution. I look forward to their comments about these aspects of preparation for reoperative cardiac surgery.

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Reference

1. Roselli EE, Pettersson G, Blackstone E, Brizzio ME, Houghtaling PL, Hauck R, et al. Adverse events during reoperative cardiac surgery: frequency, characterization, and rescue. *J Thorac Cardiovasc Surg*. 2008;135:316-23.

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Reply to the Editor:

We thank Dr Augoustides for his kind comments and inquiries regarding preparation for reoperative cardiac surgery. Cooperation and coordination of the entire team, especially the cardiothoracic anesthesiologist, is critical to success. Owing to space limitations, specific details regarding our typical approach to cardiac reoperations are included in Appendix E4 instead of within the main body of the manuscript. Some of Dr Augoustides' questions are addressed in Appendix E4, but many are not and we thank

him for bringing attention to some of the important considerations from an anesthesiologist's viewpoint. Responses to each of his questions are included below:

1. Two units of blood are typically available for all reoperations. For patients undergoing left ventricular assist device explant or open thoracoabdominal aortic aneurysm repair, 4 units are made available.
2. Patients typically have external defibrillator pads placed before skin incision. Additionally, sterile pediatric-sized internal defibrillator paddles are available in the room inasmuch as they facilitate access to the partially exposed heart should the external pads not be adequate.
3. Large bore intravenous access is routinely obtained on all patients before incision.
4. We found no correlation between timing (during sternal re-entry or otherwise) or type of adverse event and outcome because so many of these patients were rescued. This experience differs from historical reports of catastrophic sternal re-entry with mortality approaching 50%. This success is in part due to the ability to predict who may have a difficult re-entry and the preparation to compensate for it with rapid institution of cardiopulmonary bypass (CPB). Should the need for emergency institution of CPB arise, methods of preparation vary depending on patient risk. Cross-sectional imaging with computed tomography (either with or without contrast) and