and only for patients presenting with a coagulopathy as confirmed by rotational thromboelastometric analysis. Ideally, the lowest dose capable of correcting the coagulopathy should be given, avoiding a hypercoagulable state and thus thromboembolic events. Adopting this protocol avoids placing patients with a surgical cause of bleeding at an unjustified risk of thromboembolism and reserves rFVIIa for those who truly need it.

In conclusion, rFVIIa represents a treatment with its own specific indications, and we should not consider it as an alternative to reexploration in cardiac surgery. Indeed, the two are "horses for courses."

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Reply to the Editor:

We appreciate Tarzia and colleagues' letter regarding our article.¹ They take exception to comparing reexploration with pharmacologic management using recombinant activated factor VII (rFVIIa) in the intensive care unit because the source of bleeding is not known. They also elucidate a well-thought out algorithm for the management of postoperative bleeding.

Our initial experience with rFVIIa was in the operating room, where we found it to be highly effective at controlling intraoperative bleeding and to reduce the incidence of packing and delayed closure for hemostasis.² We developed criteria for correction of coagulopathy (including platelet count, prothrombin time, partial thromboplastin time, and fibrinogen levels), acid-base status, temperature, and ionized calcium levels before the administration of rFVIIa. We found that patients who continued to bleed despite correction of these variables responded quickly to rFVIIa.

All intensive care unit patients in our current study had undergone similar evaluations in the operating room and were considered not to have surgical bleeding. Unfortunately, the source of significant bleeding in the intensive care unit is always unknown, and this is the clinical conundrum our study attempted to address. In this study, we found 1 case of surgical bleeding out of the 12 patients who received rFVIIa. This is substantially lower than the 50% quoted by Tarzia and colleagues. This emphasizes the importance of having a well-thought out algorithm for the management of bleeding. Ours begins by defining significant bleeding as 3 mL/kg/h for 2 or more consecutive hours. Correction of the previously mentioned variables is accomplished as early as possible. Hemothorax and pericardial tamponade are considered indications for reoperation. Finally, the attending surgeon's index of suspicion for surgical bleeding is the final determinant of therapy. As we had

previously observed in the operating room, bleeding intensive care unit patients with corrected coagulation factors, temperature, ionized calcium, and acidosis quickly responded to rFVIIa. This suggests that we are not capable of measuring a clinically significant coagulation deficiency. Perhaps rotational thromboelastometry will be able to shed light on these difficult patients. Rotational thromboelastometry was only recently approved by the Food and Drug Administration in 2010 (after our study period), and furthermore only 2 of the 4 reagents described by Tarzia and colleagues, INTEM and HEPTM, have been approved.

We anxiously await new tools for the diagnosis and treatment of postoperative coagulopathic bleeding. It is important that they be incorporated into a well-designed and well-thought out algorithm for the treatment of postoperative bleeding.

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CANNULATION SITES AND TYPES FOR ANTEGRADE CEREBRAL PERFUSION DURING ARCH SURGERY

To the Editor:

We read with great interest the recent published paper by Shi and