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[One of the authors responds:]

Our registry was undertaken to identify possible impediments to the prompt administration of thrombolysis. As stated in the article, individual and overall performance results — the specific data Dr. Socransky suggests — were supplied to the participating centres, in the hope of encouraging them to implement any necessary corrective measures. The questions asked by Socransky are precisely the type of questions we believe are important.

Dr. Schull raises the possibility of underutilization of thrombolysis in the study cohort. Also of concern may be overutilization in situations where there are limited or no chances of improved survival but where the risks of thrombolysis remain. Unfortunately, our method does not permit comment on these important issues. Schull also notes the delay in treatment associated with a cardiology consultation. Although some of the delay was due to complexity of the cases, at the 75th percentile level an additional 12 minutes was required for diagnostic ECG in cases in which a cardiologist made the decision to administer thrombolytics. Dr. Schull appropriately cautions against needless delays caused by routine consultation. We share this opinion and support his proposed solution.

Dr. Yusuf suggests that there might have been an age or sex bias in our cohort of patients and states that criteria for thrombolysis are "fairly straightforward." We do not agree. With respect to sex, Table 3 shows only a 5-minute in-hospital difference (at the 75th percentile level) between men and women to the time of thrombolysis, a difference that appears to be due to an increase in decision time. However, the women in this cohort were significantly older than the men, and in the multivariate analysis sex was not predictive of greater delays. Furthermore, unpublished data from this registry failed to show a bias on the basis of sex in the use of the more expensive thrombolytic agent, tissue plasminogen activator. Neither the benefits nor the risks of thrombolysis are independent of age. The utility of thrombolysis requires an appreciation of the probability of benefit as a function of not only time from presentation but also size and infarct location as well as the risk of serious bleeding complications. The complexity of this decision process is obviously greater in elderly patients and, in our opinion, the additional delay of 8 minutes for patients over 65 years of age (75th percentile level) is more a reflection of appropriate clinical judgement than of hidden biases.

James Brophy, MD
Cardiology Service
Centre hospitalier de l'Université de Montréal
Montreal, Que.

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