LETTER TO THE EDITOR

A Tale of Two Provinces: Regionalization of Pancreatic Surgery in Ontario and Quebec

TO THE EDITORS:

The editorial that accompanied our paper on pancreas cancer surgery in Ontario and Quebec slightly misinterprets our main observations.¹ In our paper, we demonstrated that over the years 1994 to 2004, pancreas cancer surgery in both Ontario and Quebec was largely regionalized to high-volume hospitals.² This was associated with a marked drop in the province-level rate of operative mortality in Ontario, although not in Quebec. Of relevance, in year 1999, stake holders in Ontario created a standards document encouraging the regionalization of pancreas surgery in the province, and they performed an audit and feedback exercise to review patient outcome data with surgeons providing pancreas surgery.

Our first concern is the suggestion by the editorial's writers that the province-level initiatives in Ontario, executed in the year 1999, were "remarkably successful" at regionalizing care and improving patient outcomes. But as meticulously outlined in our paper, in both provinces, trends in regionalization and operative mortality were similar before and after the year 1999. Our second concern is the interpretation of our volume-outcome findings. The editorial writers state that the Ontario results "represent some of the best evidence to date of the power of volumebased regionalization." But our Quebec results must then fairly be considered some of the best evidence to date against the power of volume-based regionalization. As our paper highlights, despite the ubiquity of volume-outcome studies in surgical oncology, there are no high-quality papers assessing patient outcomes after the regionalization of a given procedure. The editorial references a Dutch paper on regionalization of esophageal surgery.³ However,

the methodology of this paper does not allow for comment on the influence of regionalization.

We encourage more published studies correlating changing patterns of regionalization and patient outcomes to better understand the volume-outcome phenomenon. But such studies must be methodologically rigorous. We do discourage, on the basis of our results, the assumption that regionalization must lead to improved patient outcomes. Regionalization in a jurisdiction may still be indicated to, for example, facilitate the efficient use of resources or the implementation of a quality improvement program. Most importantly, we agree with the conclusions of the editorial writers, that optimizing patient care is the main goal and that this will likely require a combination of regionalization, outcomes monitoring, and dissemination of best practices.

Marko Simunovic, MD^{1,2}, and Nancy Baxter, MD³

¹Department of Surgery, McMaster University, Hamilton, ON, Canada;

²Department of Surgical Oncology, Juravinski Cancer Centre, Hamilton Health Sciences, Hamilton, ON, Canada; ³Division of General Surgery, University of Toronto, St. Michael's Hospital, Toronto, ON, Canada e-mail: marko.simunovic@jcc.hhsc.ca

Published Online: 20 January 2011 © Society of Surgical Oncology 2011

REFERENCES

- Sonnenday CJ, Birkmeyer JD. A tale of two provinces: regionalization of pancreatic surgery in Ontario and Quebec. *Ann Surg Oncol.* 2010;17:2535–6.
- Simunovic M, Urbach D, Major D, et al. Assessing the volume outcome hypothesis and region-level quality improvement interventions: pancreas cancer surgery in two Canadian provinces. *Ann Surg Oncol.* 2010;17:2537–44.
- Wouters MW, Karim-Kos HE, le Cessie S, et al. Centralization of esophageal cancer surgery: does it improve clinical outcome? *Ann Surg Oncol.* 2009;16:1789–98.