

## Interhospital Transfers of Acute Care Surgery Patients: Should Care of Nontraumatic Surgical Emergencies be Regionalised?

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Published online: 26 April 2012  
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In this [1] and previous [2] articles Velmahos makes good arguments for regionalisation of acute surgical care. The study design and interpretation of data in this article, however, do little to advance the evidence base for regionalisation of care.

This article proposes the hypothesis that patients with complex nontraumatic surgical emergencies transferred to a tertiary acute surgical service (ACS) from outlying community hospitals (OCHs) will have worse outcomes than similar patients admitted directly to the tertiary facility. An ideal study to explore this hypothesis would be to compare the outcomes of the whole cohort of patients who present to the OCHs with those of the whole cohort who present to the ACS. This design would require cooperation and sharing of data between the ACS and OCHs and was not pursued. Instead, the available database of the ACS was interrogated and the whole cohort of direct admissions to the ACS was compared to the cohort of the OCHs' most difficult patients who selected themselves for transfer to a tertiary centre due to ongoing clinical problems. Is it surprising that this second group had poorer outcomes?

The undoubtedly excellent records at the ACS allowed preoperative risk stratification based on the well-validated National surgical quality improvement program [3]. This showed the transferred cohort to be older, to drink more alcohol, and to have a higher incidence of cardiovascular disease and obesity. The patients in this selected cohort also were more acutely unwell by the time they were admitted to the ACS than were the directly admitted

cohort. Once again, is it surprising that they had poorer outcomes?

Amongst a wealth of impressive tabulated data, a single sentence at the end of the result section states that after multivariate analysis controlling for disparities in preoperative predictive risk factors, the differences in outcomes between the two cohorts were eliminated. That is, when comparing patients with similar risk characteristics, there was no difference in outcomes between those treated initially in OCHs and those admitted directly to the ACS. This proves the null hypothesis.

Undeterred by the facts, the authors express "alarm" about the differences in outcomes and strongly advocate the tertiary ACS model of care for all patients with severe nontraumatic surgical emergencies. The ACS model has many attractive features but also potential and less well-publicised negative consequences. Widespread implementation of the model would require extensive changes in health systems. Good evidence is essential to support such extensive changes. This article certainly does not provide such evidence.

### References

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